APPENDICES I-III

Appendix I

```
/*    Copyright (c) 1991-1995 Duane DeSieno
/********************************** END TRAIN.C
*********************************/

void FindVariables()
{
short- x, n, i, k;
long nIn;
long NumPasses;
struct ddnet FAR *pnet;
float HHUGE *TrnData;
FILE *fLog;
FILE *fp;
FILE *fEnum;
      /* load the structures */
      dd_get_struct(NetNum, &pnet);
      /* load the root network parameters */
      sprintf (ParFileName, "%s. par", RootName);
      dd_read_parms (NetNum, ParFileName);
      sprintf (ParFileName, "%s.vsp",RootName);
      sprintf (TrnFileName, "%s.trn", RootName);
      sprintf (LogFileName, %s.vsl", RootName);

      /* read the partameters for variable selection from .vsp file */
      fp = fopen (ParFileName,"r");
      if(fp == NULL) {
            printf ("could not open variable selection parameters file!
\n")
            return;
      }

      fLog = fopen(LogFileName,"a");

      /* setup initial list */
      for(x=0; x<MaxVars; x++) ImpVar[x] = EXCLUDE;
      nAvailVa.rs = 0;

      /* nPartition = 5;       */
      fgets (str, 256, fp);
      nPartition = (short) atoi (str);
      fprintf (fLog, "nPartitions = %d\n", nPartition);
      printf ("nPartitions =  %d\n",nPartition);

      /* nConsensus = 10; */
      fgets(str,256,fp);
      nConsensus = (short)atoi(str);
      f-printf (fLog, "nConsensus = %d\n", nConsensus);
      printf  ("nConsensus = %d\n",nConsensus);

      /* nTop = 10; */
      fgets (str, 256, fp);
      nTop = (short)atoi(str);
      fprintf (fLog, "nTop = %d\n",nTop);
      printf("nTop = %d\n",nTop);

      /* pnet->TrainSize = 510; */
      fgets(str, 256, fp);
      pnet->TrainSize = atol(str);
      fprintf (fLog, "TrainSize = %1d\n",pnet->TrainSize);
```

```
        printf ("TrainSize = $1d\n",pnet->TrainSize);

        /* pnet->Sigma[0] = (REAL)500; */
        fgets(str, 256, fp);
        pnet ->Sigma [0] = (REAL)atoi(str);
        fprintf (fLog, "report every %d passes\n", (int)pnet->Sigma[0]);
        printf ("report every %d passes \n", (int)pnet->Sigma [0]);

        /* NumPasses = 999L; */
        fgets(str, 256, fp);
        NumPassas = atol(str);
        fprintf (fLog, "NumPasses = *1d\n",NumPasses);
        printf ("NumPasses = %ld\n",NumPasses);

        /* setup the ChiSq and SA lists */
        nAvailVars = 0;
        for(n=0; n<pnet->MaxPEs[0]; n++) {
              fgets(str, 256, fp);
              ChiSqList[n] = (short)atoi(str);
              /* add code for initial set of vars */
              if(ChiSqList[n] < 0) {
                    ChiSqList[n] = -ChiSqList[n];
                    ImpVar[ChiSqList[n] - 1] = NORMUSE;
              }
              SAList[n] = (short) atoi(strchr(str, ',') +1);
              /* add code to never use these vars */
              if (SAList[n] < 0) {
                    SAList[n] = SAList[n]
                    ImpVar[SAList[n] - 1] = NEVER;
              } else {
                    nAvailVars += 1;
              }
              fprintf (fLog,"[%02d] ChiSq = %d SA =
%d\n", n,ChiSqList[n], SAList[n]);
              printf ("%02d] ChiSq = %d SA = %d\n",n,ChiSqList[n],
SAList[n]);
        }

        fprintf (fLog, "Availaable Variables = %d\n", n",AvailVars);

        for(n=0; n<nConsensus; n++) {
              fgets(str,256,fp);
              Seeds[n] = atol(str);
              fprintf (fLog, [%02d] Seed = %1d\n", n, Seeds[n];
              printf ("%02d] Seed = %1d\n", n, Seeds[n]);
        }
        fclose(fLog);
        fclose(fp);

        /* load in the training data */
        MaxVars = pnet ->MaxPEs[0];

        ImpVarErr = (REAL)9999.0;
        pnet->TestSize pnet->TrainSize / (long) nPartition;
        pnet->Learn.Flag = 1;
        dd_allocate_net(NetNum);

        /* set up special processing for inputs */
        dd_set_inputs_func(NetNum, partition_get_input_data);

        if ( AllocTrn(NetNum, (short)1, (short) pnet->TrainSize+10) < 0) {
```

```
            printf ("Error Allocating Training set! \n");
            exit(0);
      }
      dd_get_trn_array(NetNum, &TrnData);

      ReadTrnSet (NetNum, (short)1, (short)pnet->TrainSize, TrnFileName);
      pnet->TrainSize -= pnet->TestSize;

            /* copy ImpVar list to InputFunction list */
            fLog = fopen(LogFileName, "a");
            nIn = 0;
            for(x = 0; x < MaxVars; x++) {
                  if (ImpVar[x] == NORMUSE) {
                        InputFunction[x] = NORMUSE;
                        nIn++;
                        printf ("1");
                        fprintf (fLog,"1");
                  } else if(ImpVar[x] NEVER) {
                        InputFunction[x] = EXCLUDE;
                        printf(".");
                        fprintf (fLog,".");
                  } else {
                        InputFunction [x] = EXCLUDE;
                        printf("0");
                        fprintf(fLog,"0");
                  }
            }

            printf(" initial selection \n");
            fprintf(fLog," initial selection \n");
            fclose (fLog);

            if(nIn > 0) {
                  /* train consensus of networks on the partitioned data */
                  TrainSelection(0,nIn,NumPasses);
                  ConsensusErr[0] /= (REAL)nConsensus;
                  ConsensusClass[0] /= (REAL)nConsensus;
                  printf("Initial Consensus Error %f Class %f \n",
                        (float)ConsensusErr[0], (float)ConsensusClass[0]);
                  fLog = fopen(LogFileName,"a");
                  fprintf(fLog, "Initial Consensus Error %f Class %f \n",
                        (float)ConsensusErr[0], (float)ConsensusClass[0]);
                  fclose(fLog);
                  ImpVarErr = ConsensusErr[0];
            }

/* open enumeration file for reading */
fEnum. = fopen ("Enum.1st", "r");
if (fEnum != NULL) {

      while (fgets (str,256,fEnum) != 0) {

            /* generate the combination from the string */
            x = 0;
            for (k = 0; k < MaxVars; k++) {
                  if (str[k] == '0') {
                        InputFunction[k] = EXCLUDE;
                        printf("0");
                  } else if (str[k] == '1') {
                        InputFunction[k] = NORMUSE;
                        printf("1");
```

```
                        x++;
                } else {
                        InputFunction[k] = EXCLUDE;
                        printf ("?");
                }
        }
        printf ("n");

        /* evaluate the combination */
        /* train consensus of networks on the partitioned data */
        TrainSelection (0, (long) (x) NumPasses);

        /* statistics */
        ConsensusErr[0] /= (REAL) nConsensus;
        ConsensusClass[0] /= (REAL) nConsensus;
        fLog = fopen (LogFileName, "a");
        for (i = 0; i < MaxVars; i++) {
              if(InputFunction[i] == NORMUSE) {
                        printf ("%2d,",(int) i+1));
                        fprintf(fLog, "%2d, (int) (i+1);
                }
        }
        printf("Consensus Error %f Class %f \n",
                        (float) ConsensusErr[0], (float)
ConsensusClass[0]);
        fprintf (fLog, "Consensus Error %f Class %f \n",
                        (float) ConsensusErr[0], (float) ConsensusClass
[0];
        fclose (fLog);
  }

  fclose(fEnum);
}

#ifdef NOT
  for(x = 1; x <= nAvailVars; x++) {

  /* generate x at a time combinations */
  /* initialize the array */
  for(i = 0; i < x; i++) {
        NewVar[i] = i;
  }

  /* iterate through the combinations */
  do {
        /* set up InputFunction[] from NewVar[] */
        n = 0;
        k = 0;
        for(i = 0; i < MaxVars; i++) {
              InputFunction[i] = NORMUSE; /* EXCLUDE; */
              if (ImpVar[i] == NEVER) {
                        InputFunctionc[i] = EXCLUDE;
                        continue;
              }
              if(k < x && NewVar[k] == n) {
                        InputFunction[i] = EXCLUDE; /* NORMUSE; */
                        k += 1;
              }
              n += 1;
        }
```

```
            /* evaluate the combination */
            /* train consensus of networks an the partitioned data */
            TrainSelection(0, (long) (nAvailVars - x) NumPasses);

            /* statistics */
            ConsensusErr[0] /= (REAL)nConsensus;
            ConsensusClass[0] /= (REAL) nConsensus;
            fLog = fopen(LogFileName,"a");
            for(i = 0; i < MaxVars; i++) {
                  if (InputFunction[i] == NORMUSE) {
                        printf ("%2d,", (int)(i+1));
                        fprintf (fLog, "%2d,", (int) (i+1));
                  }
            }
printf ("Consensus Error %f Class %f \n",
                  (float) ConsensusErr[0], (float) ConsensusClass [0]);
            fprintf (fLog, "Consensus Error %f Class %f \n",
                  (float) ConsensusErr[0], (float)ConsensusClass[0]);
            fclose(fLog);

            /* geneerate next selection */
            for(i = x-1; i>=0; i--) {
                  NewVar [i] ++;
                  for(k = i+1; k < x; k++) {
                        NewVar[k] = NewVar[k-1] + 1;
                  }
                  if(NewVar[x-1] < nAvailVars) {
                        break;
                  }
            }

      } while (NewVar[x-1] < nAvailVars);

      }
#else

      /* start the process of generating the important variables */
      do {
            /* training data contains all variables */
            /* use special array for getting inputs to network */
            * determine the variables to use in the current run */
            /* build list from ChiSq and SA */
            nNewVar = 0;
            for(x = 0; x < MaxVars; x++) {
                  if (ImpVar [SAList [x] -1] == EXCLUDE) {
                        NewVar[nNewVar] = SAList[x] - (short) 1;
                        ImpVar[SAList[x] -1] = USED;
                        nNewVar++;
                  }
                  if (ImpVar [ChiSqList [x] -1] == EXCLUDE) {
                        NewVar[nNewVar] = ChiSqList[x] - (short) 1;
                        ImpVar[ChiSqList[x -1] = USED;
                        nNewVar++;
                  }
                  if(nNewVar >= nTop) break;
            }
            /* work through the list of new variables */
            fLoq = fopen(LagFileName,"a");
            for (n = 0; n < nNewVar; n++) {
                  /* copy ImpVar list to InputFunction list */
                  nIn = 0;
```

```
                    for(x = 0; x < MaxVars; x++) {
                          if(ImpVar[x] == NORMUSE) {
                                InputFunction[x] = NORMUSE;
                                nIn++;
                                printf ("1");
                                f printf (fLog, "1");
                          } else if(ImpVar[x] == NEVER) {
                                InputFunction[x] = EXCLUDE;
                                printf(".");
                                fprintf (fLog, ".");
                          } else {
                                InputFunction[x] = EXCLUDE;
                                printf ("0");
                                fprintf(fLog, "0");
                          }
                    }
                    InputFunction [NewVar[n]] = NORMUSE;
                    nIn++;

              printf("...+ %d\n",NewVar[n]+1);
              fprintf(fLog,"...+ %d\n",NewVar[n]+1);
              fclose(fLog);

                    /* train consensus of networks on the partitioned data */
                    TrainSelection(n,nIn,NumPasses);
                    ConsensusErr[n] /= (REAL)nConsensus;
                    ConsensusClass[n] /= (REAL)nConsensus;
                    printf("Var %d Consensus Error %f Class %f \n",
(int)NewVar[n]+1,
                          (float)ConsensusErr[n], (float)ConsensusClass[n]);
                    f Log = f open (LogFileName, "a");
                    fprintf(fLog, "Var %d Consensus Error %f Class %f \n",
(int) NewVar[n] +1,
                          (float) ConsensusErr[n] , (float)
ConsensusClass[n]);
                    fclose(fLog);
              }
              /* Test of the list of variables is complete */
              /* Find the best variable based an error */
              BestErr = (REAL)999999.0;
              BestVar = -1;
              for(n=0; n< nNewVar; n++) {
                    if (ConsensusErr[n] < BestErr) {
                          BestErr = ConsensusErr[n];
                          BestClass = ConsensusClass[n];
                          BestVar = NewVar[n];
                    }
              }
              /* Is there a variable that improved the ImpVar list Error */
              /* Add the variable to the list of important variables */
              if(BestErr < ImpVarErr) {
                    ImpVar[BestVar] = NORMUSE;
                    ImpVarErr = BestErr;
                    printf ("Added %d to Imp Var List Error = %f Class =
%f\n",
                          (int) BestVar+1, (float)BestErr, (float)
BestClass);
                    fLog = fopen (LogFileName, "a");
                    fprintf (fLog, "Added %d to Imp Var List Error = %f Class
= %f/n",
```

```
                        (int) BestVar+1, (float)BestErr, (float)
BestClass);
                  fclose(fLog);
                  for(x=0; x<MaxVars; x++) {
                        /* cleanup from build of new variables list */
                        if (ImpVar [x] == USED) ImpVar [x] = EXCLUDE;
                  }
            }

      /* if no improvement or no variables remaining, stop */
      } while(BestVar != -1 && nNewVar > 0);

      /* report the list of Important Variables and the Network Error */
      fLog = fopen. (LogFileName, "a");
      for(x=0; x<MaxVars; x++) {
            if (ImpVar [x] == NORMUSE) {
                  printf ("USE [%d]\n", (int) x+1);
                  fprintf (fLog, "USE [%d]\n", (int) x+1);
            }
      }

#endif

      fclose (fLog);
      dd_free_net (NetNum);
      if(TrnData ! =NULL) {
            FreeTrn (NetNum);
            TrnData = NULL;
      }
}
```

Appendix II

FORM1.FRM - 1

```
' Neural Network, Function Declarations

Declare Function LoadNet% Lib "TKSDLL.DLL" (ByVal Net%, ByVal NetNameS)
Declare Function AllocNet% Lib "TKSDLL.DLL" (ByVal Net%)
Declare Function FreeNet% Lib "TKSDLL.DLL" (ByVal Net%)
Declare Function ReadWeights% Lib "TKSDLL.DLL" (ByVal Net%, ByVal NetNameS)
Declare Function LoadWeights% Lib "TKSDLL.DLL" (ByVal Net%, ByVal NetNameS)
Declare Function ReadParms% Lib "TKSDLL.DLL (ByVal Net%, ByVal NetNameS)
Declare Function LoadParms% Lib "TKSDLL.DLL" (ByVal Net%, ByVal NetNameS)
Declare Function WriteWeights% Lib "TKSDLL.DLL" (ByVal. Net%, ByVal
Net.NameS)
Declare Function SaveWeights% Lib "TKSDLL.DLL" (ByVal Net%, ByVal NetNameS)
Declare Function WriteParms% Lib "TKSDLL.DLL," (ByVal. Net%, ByVal
NetNameS)
Declare Function SaveParms% Lib "TKSDLL.DLL" (ByVal. Net%, ByVal NetNameS)
Declare Function PutInput# Lib "TKSDLL.DLL" (ByVal. Net%, ByVal. nIn%,
pIn#)
Declare Function PutState# Lib "TKSDLL.DLL" (ByVal Net%, ByVal Layer%,
Byval nSt%, pSt#)
Declare Function PutOutput# Lib "TKSDLL.DLL (ByVal Net%, ByVal nSt%, pSt#)
Declare Function PutTrn# Lib "TKSDLL.DLL" (ByVal Net%, ByVal nIn%, pIn#)
Declare Function PutWeight# Lib "TKSDLL.DLL" (ByVal Net%, ByVal Layer%,
ByVal pe%, ByVal nWt%, pWt#)
Declare Function PutParm# Lib "TKSDLL.DLL" (ByVal Net%, ByVal ParmNameS,
ByVal Layer%, pWt#)
Declare Function GetInput# Lib "TKSDLL.DLL: (ByVal Net%, ByVal. nIn%)
Declare Function GetState# Lib "TKSDLL.DLL" (ByVal Net%, ByVal Layer%,
ByVal nSt%)
Declare Function GetOutput# Lib "TKSDLL.DLL" (ByVal Net%, ByVal nSt%)
Declare Function GetWeight# Lib "TKSDLL.DLL" (ByVal Net%, ByVal Layer%,
ByVal pe%, ByVal nWt%)
Declare Function GetParm# Lib "TKSDLL.DLL" (ByVal Net%, ByVal ParmNameS,
ByVal Layer%)
Declare Function GetTrn# Lib "TKSDLL.DLL" (ByVal Net%, ByVal nIn%)
Declare Function GetNumInputs% Lib "TKSDLL.DLL" (ByVal Net%)
Declare Function GetNumOutputs% Lib "TKSDLL.DLL" (ByVal Net%)
Declare Function GetNumPEs% Lib "TKSDLL.DLL" (ByVal Net%, ByVal Layer%)
Declare Function GetNumLayers% Lib "TKSDLL.DLL (ByVal Net%)
Declare Function InitializeWts% Lib "TKSDLL.DLL" (ByVal Net%)
Declare Function Train.Net% Lib "TKSDLL.DLL" (ByVal Net%)
Declare Function IterateNet% Lib "TKSDLL.DLL" (ByVal Net%)
Declare Function IsNetAvail% Lib "TKSDLL.DLL" (ByVal Net%)
Declare Function PutGrade% Lib "TKSDLL.DLL" (ByVal Net%, pGrade#)
Declare Function GetWtsGrade# Lib "TKSDLL.DLL" (ByVal Net%)
Declare Function AdjustWts% Lib "TKSDLL.DLL" (ByVal Net%)
Declare Function GetBestWts% Lib "TKSDLL.DLL (ByVal. Net%)
Declare Function AllocTrn% Lib "TKSDLL.DLL" (ByVal Net%, ByVal
InclDesired%, ByVal NumExamples%)
Declare Function FreeTrn% Lib "TKSDLL.DLL" (ByVal Net%)
Declare Function PutTrnData# Lib "TKSDLL.DLL (ByVal Net%, ByVal
InclDesired% ByVal Example%, ByVal Offset%, pVal#)
Declare Function GetTrnData# Lib "TKSDLL.DLL (ByVal Net%, ByVal
InclDesired%, ByVal Example%, ByVal Offset%)
Declare Function ReadTrnSet% Lib "TKSDLL.DLL" (ByVal Net%, ByVal
InclDesired%, ByVal NumExamples%, ByVal NetNameS)
Declare Function BatchTrain% Lib "TKSDLL.DLL (ByVal Net%, ByVal MaxPasses%,
pTargetError#)
```

```
FORM1.FRM - 2
'Variables
Dim Age
Dim NetAge #
Dim NetPacks#
Dim NetBirth#
Dim NetPreg#
Dim NetAbort#
Dim NetDiabetes#
Dim NetPregHTN#
Dim NetHxEndo#
Dim NetDysmen#
Dim NetPelPain#
Dim NetPAP#
Dim NetHxPelSur#
Dim NetMedHx#
Dim NetGenWarts#
Dim NetElisa#

Sub RunNets ()
      Con1 = 0
      Con2 = 0
      if NetElisa# = 0# Then
            NetAge# = (Age - 32.07688) / 5.226876
            For i = 0 To 7
                  a = PutInput (i, 1, NetAge#)
                  a = PutInput(i, 2, NetDiabetes#)
                  a = PutInput(i, 3, NetPregHTN#)
                  a = PutInput(i, 4, NetPacks#)
                  a = PutInput (i, 5, NetPreg#)
                  a = PutInput(i, 6, NetBirth#)
                  a = PutInput(i, 7, NetAbort#)
                  a = PutInput(i,. 8, NetGenWarts#
                  a = PutInput (i, 9, NetPAP#)
                  a = PutInput (i, 10, NetHxEndo#)
                  a = PutInput(i, 11, NetHxPelSur#)
                  a = PutInput(i, 12, NetMedHx#)
                  a = PutInput(i, 13, NetPelPain#)
                  a = PutInput (i, 14, NetDysmen#)
                  a = IterateNet (i)
                  Con1 = Con1 + GetState(i, 3, 1)
                  Con2 = Con2 + GetState(i, 3, 2)
            Next i
      Else
            NetAge# = Age
            For i = 8 To 15
                  a = PutInput(i, 1, NetAge#)
                  a = PutInput(i, 2, NetDiabetes#)
                  a = PutInput(i, 3, NetPregHTN#)
                  a = PutInput(i, 4, NetPacks#)
                  a = PutInput(i, 5, NetPreg#)
                  a = PutInput(i, 6, NetBirth#)
                  a = PutInput (i, 7, NetAbort#)
                  a = PutInput(i, 8, NetGenWarts#)

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                  a = PutInput(i, 9, NetPAP#)
                  a = PutInput(i, 10, NetHxEndo#)
                  a = PutInput(i, 11, NetHxPelSur#)
                  a = PutInput (i, 12, NetMedHx#)
```

```
                    a = PutInput(i, 13, NetPelPain#)
                    a = PutInput(i, 14, NetDysmen#)
                    a = PutInput(i, 15, NetElisa#)
                    a = IterateNet(i)
                    Con1 = Con1 + GetState (i, 3, 1)
                    Con2 = Con2 + GetState (i, 3, 2)
              Next i
        End If
        Con1 = Con1 / 8
        Con2 = Con2 / 8
        Text2.Text = Con1
        Text4.Text = Con2

        ' Generate Score
        If NetElisa# = 0# Then
             Score = (Con1 - Con2) * 25
        Else
             Score = (Con1 - Con2) * 18
        End If
        Text8.Text = Score

End Sub

Sub Check1_Click ()
      NetDiabetes# = 1# - NetDiabates#
      RunNets
End Sub

Sub Check2_Click ()
      NetDysmen# = 1# - NetDysmen#
      RunNets
End Sub

Sub Check3_Click ()
      NetPAP# = 1# - NetPAP#
      RunNets
End Sub

Sub Check4_Click ()
      NetPelPain# = 1# - NetPelPain#
      RunNets
End Sub

Sub Check5_Click ()
      NetHxPelSur# = 1# = NetHxPelSur#
      RunNets
End Sub

Sub Check6_Click ()
      NetMedHx# = 1# - NetMedHx#
      RunNets


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End Sub

Sub Check7_Click ()
      NetGenwarts# = 1# -  NetGenWarts#
      RunNets
End Sub
```

```
Sub Check8_Click ()
      NetPregHTN# = 1# - NetPregHTN#
      RunNets
End Sub

Sub Check9_Click ()
      NetHxEndo# = 1# - NetHxEndo#
      RunNets
End Sub

Sub Command1_Click()

      Age = 30
      Text1.Text = Age
      NetAge# = (Age - 32.07688) / 5.226876
      NetPacks# = 0#
      Text3.Text = NetPacks#
      Text2.Text = "Not Run"
      Text4.Text = "Not Run"
      NetPreg# = 0#
      Text5.Text = NetPreg#
      NetBirth# = 0#
      Text6.Text = NetBirth#
      NetAbort# = 0#
      Text7.Text = NetAbort#
      NetElisa# = 0#
      Text7.Text = Net.Elisa#
      NetDiabetes# = 0#
      Check1.Value = 0
      NetPregHTN# = 0#
      Check8.Value = 0
      NetHxEndo# = 0#
      Check9.Value = 0
      NetDysmen# = 0#
      Check2.Value = 0
      NetPelPain# = 0#
      Check4.Value = 0
      NetPAP# = 0#
      Check3.Value = 0
      NetHxPelSur# = 0#
      Check5.Value = 0
      NetMedHx# = 0#
      Check6.Value = 0
      NetGenWarts# = 0#
      Check7.Value = 0

End Sub


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Sub Command2_Click ()
      End
End Sub

Sub Form_Load ()

      a = LoadNet(0, "pat07 _0")
      If a <> 0 Then GoTo mess
      a = LoadNet(1, "pat07_1")
      If a <> 1 Then GoTo mess
```

```
        a = LoadNet(2, "pat07_2")
        If a <> 2 Then GoTo mess
        a = LoadNet(3, "pat07_3")
        If a <> 3 Then GoTo mess
        a = LoadNet(4, "pat07_4")
        If a <> 4 Then GoTo mess
        a = LoadNet(5, "pat07_5")
        If a <> 5 Then GoTo mess
        a = LoadNet(6, "pat07_6")
        If a <> 6 Then GoTo mess
        a = LoadNet(7, "pat07_7")
        If a <> 7 Then GoTo mess
        a = LoadNet(8, "crfe12_0")
        If a <> 8 Then GoTo mess
        a = LoadNet(9, "crfe12_1")
        If a <> 9 Then GoTo mess
        a =. LoadNet(10, "crfe12_2")
        If a <> 10 Then GoTo mess
        a = LoadNet(11, "crfe12_3")
        If a <> 11 Then GoTo mess
        a = LoadNet(12, "crfe12_4")
        If a <> 12 Then GoTo mess
        a = LoadNet(13, "crfe12_5")
        If a <> 13 Then GoTo mess
        a = LoadNet(14, "crfe12_6")
        If a. <> 14 Then GoTo mess
        a = LoadNet(15, "crfe12_7")
mess:
        If a <> 15 Then Text4.Text = a + "No GOOD"
        'initialize variables
        Age = 30
        Text1.Text = Age
        NetAge# = (Age - 32.07688) / 5.226876
        NetPacks# = 0#
        Text3.Text = NetPacks#
        Text2.Text = "Not Run"
        Text4.Text = "Not Run"
        NetPreg# = 0#
        Text5.Text = NetPreg#
        NetBirth# = 0#
        Text6.Text = NetBirth#
        NetAbort# = 0#
        Text7.Text = NetAbort#
        NetElisa# = 0#
        Text 9.Text = NetElisa#


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        NetDiabetes# = 0#
        NetPregHTN# = 0#
        NetHxEndo# = 0#
        NetDysmen# = 0#
        NetPelPain# = 0#
        NetPAP# = 0#
        NetHxPelSur = 0#
        NetMedHx# = 0#
        NetGenWarts# = 0#
End Sub

Sub Text1_Change ()
```

```
      Age = Val(Text1.Text)
      RunNets
End Sub

Sub Text1_LostFocus ()
      RunNets
End Sub

Sub Text3_Change ()
      NetPacks# = Val(Text3.Text)
      RunNets
End Sub

Sub Text 3_LostFocus ()
      RunNets
End Sub

Sub Text5_Change ()
      NetPreg# = Val(Text5.Text)
      RunNets
End Sub

Sub Text5_LostFocus ()
      RunNets
End Sub

Sub Text6_Change ()
      NetBirth# Val (Text6.Text)
      RunNets
End Sub

Sub Text6_LostFocus ()
      RunNets
End Sub

Sub Text7_Change ()
      NetAbort# = Val (Text7.Text)
      RunNets
End Sub

Sub Text7_LostFocus ()
      RunNets
End Sub


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Sub Text9_Change ()
      If Val(Text9.Text) <= 0# Then
            NetElisa# = 0#
      Else
            NetElisa# = Log(Val(Text9.Text)
      End If
      RunNets
End Sub

Sub Text9_LostFocus ()
      RunNets
End Sub
```

Appendix III

aa_nets.h revised 7/1/95


```
/*This include file works for both DLL and DOS environments  /*

/*The following define determines the floating point precision  */
/* Do not change it unless you intend to all source files  */
#define USE-DOUBLES

#ifdef USE_DOUBLES
#define REAL double
#define SIG_LIM1T 44.0
#else
#define REAL float
#define SIG_LIMIT 30.0
#endif

/* The following prevents multiple inclusion of this header file */
#ifndef _AA_NETS_H_
#ifndef _AA_NETS_H_

/* The following prevents C++ compiler from mangling names */
#ifdef __cplusplus
extern "C" {
#endif  /* -cplusplus */

#ifdef _WINDOWS
#include <windows.h>
#endif

#include <stdio.h>
#include <stdlib.h>
#include <math.h>
#include <string.h>

/* Uncomment the following to enable user messages */
#define AA_ENABLE_USER_MESSAGES

#ifdef _WINDOWS
#ifdef  WIN32
#define  HUGE
#define  EXPORT
#else
#define HUGE _huge
#define EXPORT _export
#endif
#else
typedef unsigned short HANDLE;
#define   PASCAL

#ifdef MSC__APPL
#include <malloc.h>
#include <conio.h>
#define HUGE huge
#define FAR _far
#define EXPORT
#endif
```

```
#ifdef BC_APPL
#include <alloc.h>
#include <conio.h>
#define FAR
#define HUGE huge
#define EXPORT
#endif

#ifdef SC_APPL
#include <dos.h>
#include <conio.h>
#define FAR
#define HUGE _huge
#define EXPORT
#endif

#ifdef UNIX_ APPL
#define FAR
#define HUGE
#define EXPORT
#endif

#ifdef WD32_APPL
#include <conio.h>
#define FAR
#define HUGE
#define EXPORT
#endif

#endif

#define     MAX LAYERS  5
#define     NU14-NETS         32

struct ddnet {
      /* Network Description Parameters */
      long        NetArch;                        /*  network interconnection
arrangement  */
      long        nLayers;                        /*  The total number of
layers in the net  */
      long        MaxPEs[MAX_LAYERS]              /*  max Processing Elements
(for Mallocs)  */
      long        nPEs[MAX_LAYERS];         /*  number of hidden  */
      long        PEFunc[MAX_LAYERS];             /*  Processing Element
Fuinction  */
      long        PETrans [MAX_LAYERS]            /*  Processing Element
Transfer Function  */
      long        oIn(MAX_LAYERS];          /*  offset of Layer Inputs (init
routine)  */
      long        oWts(MAX_LAYERS];         /*  offset of Weights (from init
routine)  */
      long        oOut(MAX_LAYERS];         /*  Offset of Layer Outputs (init
routine)  */
      long        nIn[MAX_LAYERS];          /*  count of Layer Inputs (init
routine)  */
      long        nWts[MAX_LAYERS];         /*  total number of weights (init
routine)  */

      /* Network Training Parameters  */
      long        LearnFlag;          /*  0=disable 1=enable  */
      long        BatchSize;          /*  parameter for batching  */
```

```
      long        TrainSize;          /*  parameter for preprocessing  */
      long        TestSize;           /*  parameter for preprocessing  */
      long        InitWtsFlag;            /*  0=No 1=Initialize weights  */
      long        RandSeed;           /*  for random number generator  */
      long        NetErrorType;       /*  kind of error to minimize by net
*/
      REAL        ErrorTol;           /*  Error Tolerance for training  */
      REAL        InputNoise;         /*  Error Tolerance for training  */
      long        nTrialPEs;          /*  for growing algorithm, number of
trial units  */
      long        RcrOpsPerIter;      /*  ops per iteration for recurrent
nets  */
      long        TrnSequence;        /*  order of presentation of training
set  */
      long        TestWhileTrn;       /*  Controls processing fro training
and testing  */
      long        ClassMethod;        /*  Method used to to classification
performance measurement
*/
      long        NetRule[MAX_LAYERS];          /*  weight adjustment by
layer  */
      long        IterLimit[MAX_X LAYERS];      /*  for growing algorithms
only  */
      REAL        InitWtsVal[MAX_LAYERS]; /*  multiplier for grand ( )  */
      REAL        XferOfs[MAX_LAYERS];          /*  offset for XferPrime
*/
      REAL        PESigma(MAX_LAYERS];    /*  Initial Sigma for L1, L2, RBF
 */
      REAL        PEMu[MAX_LAYERS];       /*  Learning factor for PESigma
*/
      REAL        Alpha[MAX-LAYERS];            /*  learning rule
parameters  */
      REAL        Beta[MAX_LAYERS];       /* Values dependent on learning
rule used  */
      REAL        Gamma [MAX_LAYERS];
      REAL        Delta[MAX_LAYERS];
      REAL        Epsilon[MAX_LAYERS];
      REAL        Theta[MAX-YERS];
      REAL        Lambda [MAX_LAYERS];
      REAL        Mu[MAX_LAYERS];
      REAL        Sigma[MAX_LAYERS];
      REAL  WtsDecay(MAX_LAYERS];

      /* Network pointers (not all are allocated for a given network)  */
      REAL        HUGE  *pCurWts;         /* pointer to current wieghts  */
      REAL        HUGE  *pBestWts;        /* pointer to best wieghts  */
      REAL        HUGE  *pGateWts;        /* pointer to spare weights  */
      REAL        HUGE  *pDirWts;         /* pointer to direction wieghts
*/
      REAL        HUGE  *pBiasWts;        /* pointer to bias weights  */
      REAL        HUGE  *pTempWts;        /* pointer to spare weights  */
      REAL        HUGE  *pNetSts;         /* pointer to the weighted sums
states  */
      REAL        HUGE  *pASts;           /* pointer to the states for PE
outputs  */
      REAL        HUGE  *pBSts;           /* pointer to the states for PE
outputs  */
      REAL        HUGE  *pDelSts;         /* pointer to the states deltas
*/
      REAL        HUGE  *pTrnSts;         /* pointer to the training states
*/
```

```
      REAL        HUGE  *pErrSts;          /* pointer to the Error stats */
      REAL        HUGE  *pPriorErrSts;     /* pointer to the Prior Error
stats  */
      REAL        HUGE  *pErrSumSts;       /* pointer to the Error Sum stats
*/
      REAL        HUGE  *pBiasSts;         /* pointer to the Bias stats  */
      REAL        HUGE  *pProbSts;         /* pointer to the Prop stats  */
      REAL        HUGE  *pCovMat;          /* pointer to covariance by
output & trial unit */
      REAL        HUGE  *pLastCovMat;      /* pointer to prior cov by output
& trial unit  */
      long        HUGE  *poWts;            /* pointer to weights offsets by
pe element  */

      /* The following is to insure DLL compatibility  */
      HANDLE      hCurWts;     /*  HANDLE to current wieghts  */
      HANDLE      hBestWts;    /*  HANDLE to best wieghts  */
      HANDLE      hGateWts;    /*  HANDLE to spare weights  */
      HANDLE      hDirWts;     /*  HANDLE to direction wieghts  */
      HANDLE      hBiasWts;    /*  HANDLE to bias weights  */
      HANDLE      hTempWts;    /*  HANDLE to spare weights  */
      HANDLE      hNetSts;     /*  HANDLE to the weighted sums states  */
      HANDLE      hASts;         /*  HANDLE to the states for PE outputs
*/
      HANDLE      hBSts;         /*  HANDLE to the states for PE outputs
*/
      HANDLE      hDelSts;     /*  HANDLE to the states deltas */
      HANDLE      hTrnSts;     /*  HANDLE to the training states  */
      HANDLE      hErrSts;     /*  HANDLE to the Error stats  */
      HANDLE      hPriorErrSts;    /*  HANDLE to the Prior Error stats  */
      HANDLE      hErrSumSts; /*  HANDLE to the Error Sum stats  */
      HANDLE      hBiasSts;    /*  HANDLE to the Bias stats  */
      HANDLE      hProbSts;    /*  HANDLE to the Prop stats  */
      HANDLE      hCovMat;     /*  HANDLE to covariance by output & trial
unit  */
      HANDLE      hLastCovMat;/*  HANDLE to prior cov by output & trial
unit  */
      HANDLE      hoWts;       /*  HANDLE to weights offsets by pe element
*/

      /* Network Training Statistics and Globals  */
      long        Iteration;                    /* iteration count  */
      long        OperMode;
      long        TrialPick;
      long        CurCnt[MAX-LAYERS];
      long        TrainingMode;                 /* In Training Testing or
Sensitivity analysis  */
      long        TrnMaxErrSample;              /* Training Example with
Maximum Error  */
      long        TrnClassCorrect;              /* Training set Correct
count  */
      long        TstMaxErrSample;              /* Test Example with
Maximum Error  */
      long        TstClassCorrect;              /* Training set Correct
count  */
      REAL        TrnError;                     /* Training Set Error
Statistic  */
      REAL        TrnMaxError;                  /* Training Set Error
Statistic  */
      REAL        TrnClassPercent;              /* Training Set Error
Statistic  */
```

```
      REAL        TstError;                    /* Test Set Error Statistic
*/
      REAL        TstMaxError;                      /* Test Set Error
Statistic  */
      REAL        TstClassPercent;             /* Test Set Error Statistic
*/
      REAL        PETemp,MAX_LAYERSI;          /* Temperature for Hopfield
MFA networks  */
      REAL        LastVal(MAX_LAYERS);         /* current step size  */
      REAL        CurTemp[MAX_LAYERS];
      REAL        CurErr[MAX_LAYERS];          /* to error function value
*/
      REAL        LastErr(MAX_LAYERS];         /* to error function value
*/
      REAL        BestErr[MAX_LAYERS];         /* best error value  */
};

#ifndef max
#define max(a,b)   (((a)>(b))?(a):(b))
#define min(a,b)   (((a)<(b))?(a):(b))
#endif

#ifndef fabs
#define fabs(a)    (((a)>=0.0)?(a):(-a))
#endif

#ifndef ffsgn
#define ffsgn(a)   (((a)>0.0)?(1.0):(((a)==0.0)?(0.0):(-1.0)))
#endif

/* DEFINES for input layer preprocessing  */
#define     NO_PREPROC        0
#define     MEAN_STD                1
#define     MAX_MIN                 2
#define     SUM_1             3
#define     SUM_SQ-1                4

-/* DEFINES for Network Error form  */
#define     MEAN_SQ_ERR       1
#define     MEAN_ABS_ERR            2
#define     HYPER_SQ_ERR            3
#define     BI_HYPER_SQ_ERR   4
#define     MEAN_4PW_ERR            5
#define     CROS_ENTROPY            6
#define     CLASS_ERR         7
#define     USER_DEFINED            8

/* DEFINES for Network Architecture  */
#define     FEED_FORWARD            1
#define     FF_CON_PRIOR            2
#define     TOTAL_RCR         3
#define     PRIOR_RCR               4
#define     CASCADE                 5
#define     CASCADE_RCR       6
#define     ELMAN_RCR         7
#define     JORDAN_RCR        8

/* DEFINES for the PE Functions  */
#define     DOT_PROD                1
#define     L2_DIST                 2
#define     L1_DIST                 3
```

```
#define     QUAD_SUM            4
#define     RADIAL                      5
#define     SIGMA_PI                    6
#define     GRNN_SUM                    7
#ifdef          AG_CUSTOM
#define     FUZZ_APP                    8
#define     GEN_SIG_PI          9
#endif

/* DEFINES for Transfer Functions  */
#define     SIGMOID                     1
#define     BI_SIGMOID          2
#define     ATAN                3
#define     BI_ATAN                     4
#define     SIN                         5
#define     BI_SIN                      6
#define     LINEAR                      7
#define     THRES_LINEAR                8
#define     BI_THRES_LINEAR     9
#define     THRESHOLD           10
#define     BI_THRESHOLD                11
#define     GAUSS               12
#define     CAUCHY                      13
#define     WIN_TAKE_ALL                14
#define     PERIODIC_SIN                15
#define     STCH_THREES         16
#define     STCH_BI_THRES               17
#define     MFA_THRES           18
#define     MFA_BI_THRES                19

/* DEFINES for Training set ordering  */
#define     NORMAL                      0
#define     RANDOM                      1
#define     SHUFFLE                     2
#define     TD_REVERSE          3

/* DEFINES for Learning Rules for NetRule [layer] */
#define     NONE                0
#define     BACK_PROP           1
#define     QUICK_PROP          2
#define     JACOBS_PROP         3
#define     KOHONEN_WTA         4
#define     SIM_ANNEAL          5
#define     RECURRENT_BP                6
#define     KOHONEN_LVQ         7
#define     CASCADE_CORR                8
#define     SW_RAND_OPT         9
#define     SIMPLEX_SA          10
#define     POWELL_OPT          11
#define     CONJ_GRAD           12
#define     PROB_NET                    13
#define     GEN_REG_NET         14
#define     LEVEN_MARQ          15
#define     NUM_ALGO            16

/* DEFINES for CASCADE_CORR growing algorithms OperMode */
#define     TRIAL_ADJ                   1
#define     OUTPUT_ADJ          2
#define     GLOBAL_ADJ          3
#define     MAX_CAPACITY                4
```

```
/* DEFINES for GRNN OperMode */
#define     LOAD_TRN                1
#define     SIGMA_ADJ           2

/* DEFINES for Classification Method */
#define     BEST_PICK               0
#define     WITHIN_TOL          1

/* The following is defined when error message displays should be shown */
#define     AA_SHOW_ERROR_MESSAGES

/* Error return codes */
#define     AA_ERROR_NONE                               0
#define     AA_ERROR_OPEN_PARMS_FILE                    -1
#define     AA_ERROR_LOADING_PARMS                  -2
#define     AA_ERROR_CREATE_PARMS_FILE                  -3
#define     AA_ERROR_SAVING_PARMS                       -4
#define     AA_ERROR_NO_EQUAL_IN_PARMS_LINE             -5
#define     AA_ERROR_IDENTIFIER_IN_PARMS            -6
#define     AA_ERROR_OPEN_WEIGHTS_FILE                  -7
#define     AA_ERROR_LOADYNG_WEIGHTS                    -8
#define     AA_ERROR_CRE.ATE_WEIGHTS_FILE           -9
#define     AA_ERROR_SAVING_WEIGHTS                 -10
#define     AA_ERROR_CRE.ATE_WTS_LOG_FILE           -11
#define     AA_ERROR_SAVING_WTS_LOG                 -12

#define     AA_ERROR_ALLOC                  -100
#define     AA_ERROR_ALLOC_poWts            ( AA_ERROR_ALLOC  -     0 )
#define     AA_ERROR_ALLOC_pNetSts          ( AA_ERROR_ALLOC  -     1 )
#define     AA_ERROR_ALLOC_pASts            ( AA_ERROR_ALLOC  -     2 )
#define     AA_ERROR_ALLOC_pBSts            ( AA_ERROR_ALLOC  -     3 )
#define     AA_ERROR_ALLOC_pDelSts          ( AA_ERROR_ALLOC  -     4 )
#define     AA_ERROR_ALLOC_pTrnSts          ( AA_ERROR_ALLOC  -     5 )
#define     AA_ERROR_ALLOC_pErrSts          ( AA_ERROR_ALLOC  -     6 )
#define     AA_ERROR_ALLOC_pPriorErrSts     ( AA_ERROR_ALLOC  -     7 )
#define     AA_ERROR_ALLOC_pErrSumSts       ( AA_ERROR_ALLOC  -     8 )
#define     AA_ERROR_ALLOC_pBiasSts         ( AA_ERROR_ALLOC  -     9 )
#define     AA_ERROR_ALLOC_pProbSts         ( AA_ERROR_ALLOC  -     10 )
#define     AA_ERROR_ALLOC_pCovMat          ( AA_ERROR_ALLOC  -     11 )
#define     AA_ERROR_ALLOC_pLastCovMat      ( AA_ERROR_ALLOC  -     12 )
#define     AA_ERROR_ALLOC_pCurWts          ( AA_ERROR_ALLOC  -     13 )
#define     AA_ERROR_ALLOC_pBestWts         ( AA_ERROR_ALLOC  -     14 )
#define     AA_ERROR_ALLOC_pDirWts          ( AA_ERROR_ALLOC  -     15 )
#define     AA_ERROR_ALLOC_pBiasWts         ( AA_ERROR_ALLOC  -     16 )
#define     AA_ERROR_ALLOC_pGateWts         ( AA_ERROR_ALLOC  -     17 )
#define     AA_ERROR_ALLOC_pTempWts ( AA_ERROR_ALLCC  -     18 )

/* function prototypes reference */
/* Visual Basic and Excel functions specific to the DLL library */
short FAR PASCAL EXPORT LoadNet (short NetNum, char FAR *pName);
short FAR PASCAL EXPORT LoadWeights (short NetNum, char FAR *pName);
short FAR PASCAL EXPORT ReadWeights (short NetNum, char FAR *pName);
short FAR PASCAL EXPORT LoadParms (short NetNum, char FAR *pName);
short FAR PASCAL EXPORT ReadParms (short NetNum, char FAR *pName);
short FAR PASCAL EXPORT AllocNet (short NetNum);
short FAR PASCAL EXPORT FreeNet (short NetNum);
short FAR PASCAL EXPORT SaveWeights (short NetNum, char FAR *pName);
short FAR PASCAL EXPORT WriteWeights(short NetNum, char FAR *pName);
short FAR PASCAL EXPORT SaveParms (short NetNum, char FAR *pName);
short FAR PASCAL EXPORT WriteParms (short NetNum, char FAR *pName);
```

```
double      FAR PASCAL EXPORT PutInput (short NetNum, short nIn, double FAR
*pIn );
double      FAR PASCAL EXPORT PutState (short NetNum, short layer, short
pe, double FAR *pSt);
double      FAR PASCAL EXPORT Putoutput (short NetNum, short nSt, double
FAR *pSt);
double      FAR PASCAL EXPORT PutTrn (short NetNum, short nSt, double FAR
*pSt);
double      FAR PASCAL EXPORT PutWeight (short NetNum, short layer, short
pe, short nWt, double FAR *pWt);
double      FAR PASCAL EXPORT PutParm (short NetNum, char FAR *pName, short
layer, double FAR *pVal);
double      FAR PASCAL EXPORT GetInput (short NetNum, short nIn);
double      FAR PASCAL EXPORT GetState (short NetNum, short layer, short
nSt);
double      FAR PASCAL EXPORT GetOutput (short NetNum, short nSt);
double      FAR PASCAL EXPORT GetTrn (short NetNum, short nSt);
double      FAR PASCAL EXPORT GetWeight (short NetNum, short layer, short
pe, short nWt);
double      FAR PASCAL EXPORT GetParm (short NetNum, char FAR *pName, short
layer);
short FAR PASCAL EXPORT GetNumInputs (short NetNum);
short FAR PASCAL EXPORT GetNumOutputs (short NetNum);
short FAR PASCAL EXPORT GetNumPEs (short NetNum, short layer);
short FAR PASCAL EXPORT GetNumLayers (short NetNum);
short FAR PASCAL EXPORT InitializeWts (short NetNum);
short FAR PASCAL EXPORT TrainNet (short NetNum);
short FAR PASCAL EXPORT IterateNet (short NetNum);
short FAR PASCAL EXPORT IsNetAvail (short NetNum);
short FAR PASCAL EXPORT PutGrade (short NetNum, double FAR *pVal);
double      FAR PASCAL EXPORT GetWtsGrade ( short NetNum);
short FAR PASCAL EXPORT AdjustWts (short NetNum);
short FAR PASCAL EXPORT GetBestWts (short NetNum);
short FAR PASCAL EXPORT AllocTrn (short NetNum, short InclDesired, short
nExamples);
short FAR PASCAL EXPORT FreeTrn (short NetNum);
double      FAR PASCAL EXPORT PutTrnData (short NetNum, short InclDesired,
short example, short offset, double FAR *pVal);
double      FAR PASCAL EXPORT GetTrnData (short NetNum, short InclDesired,
short example, short offset);
short FAR PASCAL EXPORT ReadTrnSet (short NetNum, short InclDesired, short
MaxTrn, char FAR *pName );
short FAR PASCAL EXPORT BatchTrain ( short NetNum, short MaxPasses, double
FAR *TargetError );

/* user definable network evaluation function for graded and batched
learning */
void  FAR PASCAL EXPORT eval_net (short NetNum, REAL *pRMSError, REAL
*pMaxError, REAL *pC lassError);
void  FAR PASCAL EXPORT dd_set_inputs_func (short NetNum, long (FAR PASCAL
EXPORT *inputs_fn) (short NetNum, long example));
void  FAR PASCAL EXPORT dd_set_sample_func (short NetNum, void (FAR PASCAL
EXPORT *sample_fn) (short NetNum, long example));
void  FAR PASCAL EXPORT dd_set_pass_func (short NetNum, void (FAR PASCAL
EXPORT *pass_fn)(short NetNum));

/* C language callable functions */
void  FAR PASCAL  dd_get_struct (short NetNum, struct ddnet FAR **pnet);
void  FAR PASCAL  dd_get_trn_array (short NetNum, float HUGE **ptrndata);
short FAR PASCAL  dd_allocate_net (short NetNum);
void  FAR PASCAL  dd_initialize_wts (short NetNum);
```

```
void  FAR PASCAL  dd_free_net (short NetNum);
void  FAR PASCAL  dd_adjwts (short NetNum);
void  FAR PASCAL  dd_train_network (short NetNum, long MaxPasses, double
TargetError);
void  FAR PASCAL  dd_train_sa (short NetNum, long MaxPasses, double
TargetError);
void  FAR PASCAL  dd_train_swro (short NetNum, long MaxPasses, double
TargetError);
void  FAR PASCAL  dd_train_meb (short NetNum, long MaxPasses, double
TargetError);
void  FAR PASCAL  dd_train_pow (short NetNum, long MaxPasses, double
TargetError);
void  FAR PASCAL  dd_train_cg (short NetNum, long MaxPasses, double
TargetError);
void  FAR PASCAL  dd_train_pnn (short NetNum, long MaxPasses, double
TargetError);
void  FAR PASCAL  dd_train_grnn (short NetNum, long MaxPasses, double
TargetError);
void  FAR PASCAL  dd_train_lm (short NetNum, long MaxPasses, double
TargetError);
void  FAR PASCAL  dd_train_by_sample (short NetNum, long MaxPasses, double
TargetError);
void  FAR PASCAL  dd_train ( short NetNum );
void  FAR PASCAL  dd_iterate (short NetNum);
void  FAR PASCAL  dd_preproc (short NetNum);
void  FAR PASCAL  dd_gendir (short NetNum, short layer);
void  FAR PASCAL  dd_bstwts (short NetNum, short layer);
void  FAR PASCAL  dd_curwts (short NetNum, short layer);
void  FAR PASCAL  dd_otp_ff (short NetNum);
void  FAR PASCAL  dd_otp_ffcp (short NetNum);
void  FAR PASCAL  dd_otp_ti (short NetNum);
void  FAR PASCAL  dd_otp_pi (short NetNum);
void  FAR PASCAL  dd_otp_cas (short NetNum);
void  FAR PASCAL  dd_otp_cas_rcr (short NetNum);
void  FAR PASCAL  dd_otp_elm_rcr (short NetNum);
void  FAR PASCAL  dd_otp_jor_rcr (short NetNum);
void  FAR PASCAL  dd_grad (short NetNum);
void  FAR PASCAL  dd_grad_mse (short NetNum, short layer);
void  FAR PASCAL  dd_grad_mae (short NetNum, short layer),
void  FAR PASCAL  dd_grad_hse (short NetNum, short layer);
void  FAR PASCAL  dd_grad_bhse (short NetNum, short layer);
void  FAR PASCAL  dd_grad_m4pe (short NetNum, short layer);
void  FAR PASCAL  dd_grad_ce (short NetNum, short layer);
void  FAR PASCAL  dd_grad_y (short NetNum, short layer);
void  FAR PASCAL  dd_grad_ff (short NetNum, short layer);
void  FAR PASCAL  dd_grad_ffcp (short NetNum, short layer);
void  FAR PASCAL  dd_grad_t_rcr (short NetNum);
void  FAR PASCAL  dd_grad_cas (short NetNum, short layer);
void  FAR PASCAL  dd_grad_elm_rcr (short NetNum, short layer);
void  FAR PASCAL  dd_grad_jor_rcr (short NetNum, short layer);
void  FAR PASCAL  dd_adj_bpn (short NetNum, short layer);
void  FAR PASCAL  dd_adj_qp (short NetNum, short layer);
void  FAR PASCAL  dd_adj_jacob (short NetNum, short layer);
void  FAR PASCAL  dd_adj_koh (short NetNum, short layer);
void  FAR PASCAL  dd_adj_lvq (short NetNum, short layer)
void  FAR PASCAL  dd_adj_sa (short NetNum, short layer);
void  FAR PASCAL  dd_adj_swro (short NetNum, short layer);
void  FAR PASCAL  dd_grad_cascor (short NetNum);
void  FAR PASCAL  dd_adj_cascor (short NetNum);
void  FAR PASCAL  dd_adj_pnn (short NetNum);
void  FAR PASCAL  dd_adj_grnn (short NetNum);
```

```
void  FAR PASCAL  dd_adj_lm (short NetNum);
void  FAR PASCAL  dd_parms (short NetNum);
short FAR PASCAL  dd_load_parms (short NetNum, char *name);
short FAR PASCAL  dd_save_parms (short NetNum, char *name);
short FAR PASCAL  dd_read_parms (short NetNum, char *name);
short FAR PASCAL  dd_write_parms (short NetNum, char *name);
short FAR PASCAL  dd_load_wts (short NetNum, char *name);
short FAR PASCAL  dd_save_wts (short NetNum, char *name);
short FAR PASCAL  dd_read_wts (short NetNum, char *name);
short FAR PASCAL  dd_write_wts (short NetNum, char *name);
void  FAR PASCAL  dd_print_weights ( short NetNum. );
short FAR PASCAL  dd_log_weights ( short NetNum, char *fname);
void  FAR PASCAL  dd_add_pe (short NetNum, long layer);
void  FAR PASCAL  generate_offsets (short NetNum, long *pTotWts, long
*pMaxWts);
void  FAR PASCAL  user_message (char *str );
char  FAR   *dd_getmem ( HANDLE *pH, long len);
void  FAR PASCAL  dd_freemem (HANDLE *pH, char FAR *pM)
void  FAR PASCAL  add_wts (
            short NetNum,
            long layer,
            long Ofs,
            long cnt,
            double InitVal);
void  FAR PASCAL  XferFunc(
            REAL HUGE *pIn,
            REAL HUGE *pOut,
            short       n,
            short       Type,
            REAL *Temp);
void  FAR PASCAL  XferPrime(
            REAL HUGE *pI,
            REAL HUGE *pN,
            REAL HUGE *pO,
            short       n,
            short       Type);
void  FAR PASCAL  PeFunc(
            REAL HUGE *pIn,
            REAL HUGE **ppWts,
            REAL HUGE *pOut,
            short       nIn,
            short       nOut,
            short       Type);
void  FAR PASCAL PePrime(
            REAL HUGE *pIn,
            REAL HUGE *pErrIn,
            REAL HUGE *pWts,
            REAL HUGE *pDir,
            REAL HUGE *pErrOut,
            REAL HUGE *pMu,
            short       nIn,
            short       nOut,
            short       Type);
void  FAR PASCAL vamul(
            REAL HUGE *pA,
            REAL HUGE *pvA,
            REAL HUGE *pB,
            REAL HUGE *pC,
            long        n)
double      FAR PASCAL  crand (void);
double      FAR PASCAL  grand(void);
```

```
void  FAR PASCAL  surand (long idum);
double      FAR PASCAL  urand (void);
double      FAR PASCAL  xrand (void);

#ifdef _cplusplus
}
#endif

#endif /* AA_NETS_H_ */

/*************************************************************************
********/



// mainfrm.cpp : implementation of the CMainFrame class
//

#include "stdafx.h"
#include "PTDinp.h"

#include "mainfrm.h"

#ifdef _DEBUG
#undef THIS_FILE
static char BASED_CODE THIS_FILE[] = FILE;
#endif

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// CMainFrame

IMPLEMENT_DYNCREATE (CMainFrame, CFrameWnd)

BEGIN_MESSAGE_MAP (CMainFrame, CFrameWnd)
      //{{AFX_MSG_MAP (CMainFrame)
            // NOTE - the ClassWizard will add and remove mapping macros
here.
            //    DO NOT EDIT what you see in these blocks of generated
code !
      ON_WM_CREATE()
      //}}AFX_MSG_MAP
END_MESSAGE_MAP()

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// arrays of IDs used to initialize control bars

// toolbar buttons - IDs are command buttons
static UINT BASED_CODE buttons[]
{
      // same order as in the bitmap 'toolbar.bmp'
      ID_FILE_OPEN,
            ID_SEPARATOR,
      ID_REC_FIRST,
      ID_REC_PREV,
      ID_REC_NEXT,
      ID_REC_LAST,
            ID_SEPARATOR,
      ID_DATA_EDIT,
```

```
        ID_DATA_NEW,
                ID_SEPARATOR,
        ID_REC_GOTO,
                ID_SEPARATOR,
        ID_APP_ABOUT,
};

static UINT BASED_CODE indicators[] =
{
        ID_SEPARATOR,           // status line indicator
        ID_INDICATOR_CAPS,
        ID_INDICATOR_NUM,
        ID_INDICATOR_SCRL,
};

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// CMainFrame construction/destruction

CmainFrame::CmainFrame()
{
        // TODO:  add member initialization code here
}

CMainFrame::~CmainFrame()
{
}

int CMainFrame::OnCreate(LPCREATESTRUCT lpCreateStruct)
{
        if      (CframeWnd::OnCreate(lpCreateStruct) == -1)
                return -1;

        if      (!m_wndToolBar.Create(this) ||
                !m_wndToolBar.LoadBitmap(IDR_MAINFRAME) ||
                !m_wndToolBar.SetButtons(buttons,
                        sizeof(buttons)/sizeof(UINT)))
        {
                TRACE("Failed to create toolbar\n");
                return -1;  // fail to create
        }

        if      (!m_wndStatusBar.Create(this) ||
                !m_wndStatusBar.SetIndicators(indicators,
                        sizeof(indicators)/sizeof(UINT)))
        {
                TRACE("Failed to create status bar\n");
                return -1;  // fail to create
        }

        return 0;
}

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// CMainFrame diagnostics

#ifdef _DEBUG
void CMainFrame::AssertValid() const
{
        CFrameWnd::AssertValid();
```

```
}

void CMainFrame::Dump (CDumpContext& dc) const
{
      CFrameWnd::Dump(dc);
}

#endif //_DEBUG

///////////////////////////////////////////////////////////////////////////
///////////////////////////////////////////////////////////////////////////
// CMainFrame message handlers




// mainfrm.h : interface of the CMainFrame class
//
///////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////

class CmainFrame : public CFrameWnd
{
protected: // create from serialization only
      CmainFrame();
      DECLARE_DYNCREATE(CMainFrame)

//Attributes
public:

// Operations
public:

// Implementation
public:
      virtual ~CmainFrame();
#ifdef_DEBUG
      virtual void AssertValid() const;
      virtual void Dump (CDumpContext& dc) const;
#endif

protected: // control bar embedded members
      CStatusBar  m_wndStatusBar;
      CToolBar    m_wndToolBar;

// Generated message map functions
protected:
      //{{AFX_MSG(CMainFrame)
      afx_msg int OnCreate(LPCREATESTRUCT lpCreateStruct);
      // NOTE - the ClassWizard will add and remove member functions here.
      //    DO NOT EDIT what you see in these blocks of generated code!
      //}}AFX_MSG
      DECLARE_MESSAGE_MAP()
};

///////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////
```

```
PTDDlgl.cpp : Defines the class behaviors for the application.

#include "stdafx.h''
#include ''PTDinp.h''
#include ''PTDDlgl.h''

#ifdef       _DEBUG
#define new DEBUG_NEW
#undef THIS_FILE
static char THIS_FILE[] = _FILE_;
#endif

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
// CPTDInp dialog

CPTDInp::CPTDInp(CWnd* pParent /*=NULL*/)
      : CDialog(CPTDInp::IDD, pParent)
{
      //((AFX_DATA_INIT(CPTDInp)
      m_DATE_OF_BIRTH = "";
      m_NAME_F = "";
      m_NAME_MI = "";
      m_1_COMP = FALSE;
      m_2_COMP = FALSE;
      m_3_COMP = FALSE;
      m_4_COMP = FALSE;
      m_5_COMP = FALSE;
      m_6_COMP = FALSE;
      m_ACOG_N = FALSE;
      m_ACOG_Y = FALSE;
      m_Antibiotics = FALSE;
      m_AntiHyper = FALSE;
      m_CervCerclage = FALSE;
      m_CervFirm = FALSE;
      m_CervMod = FALSE;
      m_CervSoft = FALSE;
      m_Corticosteroids = FALSE;
      m_Dilitationl_2 = FALSE;
      m_Dilitation2 = FALSE;
      m_Dilitation2_3 = FALSE;
      m_Dilitation3 = FALSE;
      m_DilitationGt3 = FALSE;
      m_Dilitationl = FALSE;
      m_DilitationLtl = FALSE;
      m_DilitationUkn = FALSE;
      m_EGAatSample = "";
      m_EGAbyLMP = "";
      m_EGAbySONO = "";
      m_EthnicOriginAsian = FALSE;
      m_EthnicOriginBlack = FALSE;
      m_EthnicOriginHispanic = FALSE;
      m_EthnicOriginNativeAmerican = FALSE;
      m_EthnicOriginOther = FALSE;
      m_EthnicOriginWhite = FALSE;
      m_FFN_Neg = FALSE;
      m_FFN_Pos = FALSE;
      m_GestationalDiabetes = FALSE;
      m_HypertensiveDisorders = FALSE;
```

```
        m_Insulin = FALSE;
        m_LadID = "";
        m_MedicationNone = FALSE;
        m_ModicationUnknown = FALSE;
        m_MultipleGestationQuads = FALSE;
        m_MultipleGestationTriplets = FALSE;
        m_MultipleGestationTwins = FALSE;
        m_MaritalStatusDivorced = FALSE;
        m_MaritalStatusLWP = FALSE;
        m_MaritalStatusMarried = FALSE;
        m_MaritalStatusOther = FALSE;
        m_MaritalStatusSingle = FALSE;
        m_MaritalStatusWidowed = FALSE;
        m_MultipleGestation = FALSE;
        m_PatientCompl = FALSE;
        m_PatientComp2 = FALSE;
        m_PatientComp3 = FALSE;
        m_PatientComp4 = FALSE;
        m_PatientComp5 = FALSE;
        m_PatientComp6 = FALSE;
        m_Tocolytics = FALSE;
        m_UtCervAbnormal = FALSE;
        m_VaginalBleeding = FALSE;.
        m_VaginalBleedingGross = FALSE;
        m_VaginalBleedingMed = FALSE;
        m_VaginalBleedingTrace = FALSE;
        m_2_COMP_1 = FALSE;
        m_2_COMP_2 = FALSE;
        m_2_COMP_3 = FALSE;
        m_ABORTIONS = "";
        m_PARITY = "";
        m_PatCompl_1_3 = FALSE;
        m_PatCompl_10_12 = FALSE;
        m_PatCompl_4_6 = FALSE;
        m_PatCompl_7_9 = FALSE;
        m_PatCompl_GT12 = FALSE;
        m_PatCompl_LT1 = FALSE;
        m_GRAVITY = "";
        //}}AFX_DATA_INTT
}

void  CPTDInp::DoDataExchange(CDataExchange* pDX)

        CDialog::DoDataExchange(pDX);
        //{{AFX_DATA_MAP(CPTDInp)
        DDX_Text(pDX, IDC_DATE_OF_BIRTH, m_DATE_OF_BIRTH);
        DDX_Text(pDX, IDC_NAME_F, m_NAME_F);
        DDV_MaxChars(pDX, m_NAME_F, 24);
        DDX_Text(pDX, IDC_NAME_L, m_NAME_L);
        DDV_MaxChars(pDX, m_NAME_L, 24);
        DDX_Text(pDX, IDC_NAME_MI, m_NAME_MI);
        DDV_MaxChars(pDX, M_NAME_MI, 2);
        DDX_Check(pDX, IDC_1_COMP, m_1_COMP);
        DDX_Check(pDX, IDC_2_COMP, m_2_COMP);
        DDX_Check(pDX, IDC_3_COMP, m_3_COMP);
        DDX_Check(pDX, IDC_4_COMP, m_4_COMP);
        DDX_Check(pDX, IDC_5_COMP, m_5_COMP);
        DDX_Check(pDX, IDC_6_COMP, m_6_COMP);
        DDX_Check.(pDX, IDC_ACOG_N, m_ACOG_N);
        DDX_Check(pDX, IDC_ACOG_Y, m_ACOG_Y);
        DDX_Check(pDX, IDC_ANTIBIOTICS, m_Antibiotics);
```

```
DDX_Check(pDX, IDC_ANTIHYPER, m_AntiHyper);
DDX_Check(pDX, IDC_CERV_CERCLAGE, m_CervCerclage);
DDX_Check(pDX, IDC_CERV_FIRM, m CervFirm);
DDX_Check(pDX, IDC_CERV_MOD, m_CervMod);
DDX_Check(pDX, IDC_CERV_SOFT, m_CervSoft);
DDX_Check(pDX, IDC_CORTICOSTEROIDS, m_Corticosteroids);
DDX_Check(pDX, IDC_DILITATION_1_2, m_Dilitation1_2);
DDX_Check(pDX, IDC_DILITATION_2, m_Dilitation2);
DDX_Check(pDX, IDC_DILITATION_2_3, m_Dilitation2_3);
DDX_Check(pDX, IDC_DILITATION_3, m_Dilitation3);
DDX_Check(pDX, IDC_DILITATION_GT3, m_DilitationGt3);
DDX_Check(pDX, IDC_DILITATION_1, m_Dilitation1);
DDX_Check(pDX,IDC_DILITATION_LT1, m_DilitationLt1);
DDX_Check (pDX, IDC_DILITATION_UKN, m_DilitationUkn);
DDX_Text(pDX, IDC_EGA_AT_SAMP, m_EGAatSample);
DDV_MaxChars(pDX, m_EGAatSample, 10);
DDX_Text(pDX, IDC_EGA_BY_LMP, m_EGAbyLMP);
DDX_Text(pDX, IDC_EGA_BY_SONO, m_EGAbySONO)
DDX_Check(pDX, IDC_EO_ASIAN, m_EthnicOriginAsian);
DDX_Check(pDX, IDC_EO_BLACK, m_EthnicOriginBlack);
DDX_Check(pDX, IDC_EO_HISPANIC, m_EthnicOriginHispanic);
DDX_Check(pDX, IDC_EO_NATIVE_AMERICAN, m_EthnicoriginNativeAmerican);
DDX_Check(pDX, IDC_EO_OTHER, m_EthnicOriginOther);
DDX_Check(pDX, IDC_EO_WHITE, m_EthnicOriginWhite);
DDX_Check(pDX, IDC_FFN_NEG, m_FFN_Neg);
DDX_Check(pDX, IDC_FFN_POS, m_FFN_Pos);
DDX_Check(pDX, IDC_GEST_DIABETES, m_GestationalDiabetes);
DDX_Check(pDX, IDC_HYPERTEN_DISORDERS, m_HypertensiveDisorders);
DDX_Check(pDX, IDC_INSULIN, m_Insulin);
DDX_Text(pDX, IDC_LAB_ID, m_LadID);
DDX_Check (pDX, IDC_MED_NONE, m_MedicationNone);
DDX_Check(pDX, IDC_MED_UKN, m_MedicationUnknown);
DDX_Check(pDX, IDC_MG_QUADS, m_MultipleGestationQuads);
DDX_Check(pDX, IDC_MG_TRIPLETS, m_MultipleGestationTriplets);
DDX_Check(pDX, IDC_MG_TWINS, m_MultipleGestationTwins);
DDX_Check(pDX, IDC_MS_DIVORCED, m_MaritalStatusDivorced);
DDX_Check(pDX, IDC_MS_LWP, m_MaritalStatusLWP) ;
DDX_Check(pDX, IDC_MS_MARRIED, m_MaritalStatusMarried);
DDX_Check(pDX, IDC_MS_OTHER, m_MaritalStatusOther);
DDX_Check(pDX, IDC_MS_SINGLE, m_MaritalStatusSingle);
DDX_Check(pDX, IDC_MS_WIDOWED, m_MaritalStatusWidowed);
DDX_Check(pDX, IDC_MULT_GEST, m_MultipleGestation) ;
DDX_Check(pDX, IDC_PATIENT_COMP_1, m_PatientCompl);
DDX_Check(pDX, IDC_PATIENT_COMP_2, m_PatientComp2);
DDX_Check(pDX, IDC_PATIENT_COMP_3, m_PatientComp3);
DDX_Check(pDX, IDC_PATIENT_COMP_4, m_PatientComp4);
DDX_Check(pDX, IDC_PATIENT_COMP_5, m_PatientComp5);
DDX_Check(pDX, IDC_PATIENT_COMP_6, m_PatientComp6);
DDX_Check(pDX, IDC_TOCOLYTICS, m_Tocolytics) ;
DDX_Check(pDX, IDC_UT_CWRV_ABNORM, m_UtCervAbnormal);
DDX_Check(pDX, IDC_VAGINAL_BLEEDING, m_VaginalBleeding);
DDX_Check(pDX, IDC_VB_GROSS, m_VaginalBleedingGross) ;
DDX_Check(pDX, IDCVB_MED, m_VaginalBleedingMed);
DDX_Check(pDX, IDC_VB_TRACE, m_VaginalBleedingTrace);
DDX_Check(pDX, IDC_2_COMP 1, m_2_COMP_1);
DDX_Check(pDX, IDC_2_COMP_2, m_2_COMP_2);
DDX_Check(pDX, IDC_2_COMP_3, m_2_COMP_3);
DDX_Text(pDX, IDC_ABORTIONS, m_ABORTIONS);
DDV_MaxChars(pDX, m_ABORTIONS, 2);
DDX_Text(pDX, IDC_PARITY, m_PARITY);
DDV_MaxChars(pDX, m_PARITY, 2);
```

```
        DDX_Check(pDX, IDC_PC1_1_3, m_PatCompl_1_3);
        DDX_Check(pDX, IDC_PC1_10_12, m_PatCompl_10_12);
        DDX_Check(pDX, IDC_PC1_4_6, m_PatCompl_4_6);
        DDX_Check(pDX, IDC_PC1_7_9, m_PatCompl_7_9);
        DDX_Check(pDX, IDC_PC1_GT12, m_PatCompl_GT12);
        DDX_Check(pDX, IDC_PC1_LT1, m_PatCompl_LT1);
        DDX_Text(pDX, IDC_GRAVIDITY, m_GRAVITY);
        DDV_MaxChars(pDX, m_GRAVITY, 2);
        //}}AFX_DATA_MAP
}

BEGIN_MESSAGE_MAP(CPTDInp, CDialog)
        //{{AFX_MSG_MAP(CPTDInp)
        ON_WM_RBUTT5NDOWN()
        ON_BN_CLICKED(IDC_ACOG_N, OnAcogN)
        ON_BN_CLICKED(IDC_ACOG_Y, OnAcogY)
        ON_BN_CLICKED(IDC_FFN_NEG, OnFfnNeg)
        ON_BN_CLICKED(IDC_FFN_POS, OnFfnPos)
        ON_BN_CLICKED(IDC_MG_QUADS, OnMgQuads)
        ON_BN_CLICKED(IDC_MG_TRIPLETS, OnMgTriplets)
        ON_BN_CLICKED(IDC_MG_TWINS, OnMgTwins)
        ON_BN_CLICKED(IDC_MULT_GEST, OnMultGest)
        ON_BN_CLICKED (IDC_DILITATION_1, OnDilitation1)
        ON_BN_CLICKED(IDC_DILITATION_1_2, OnDilitation12)
        ON_BN_CLICKED(IDC_DILITATTON_2, OnDilitation2)
        ON_BN_CLICKED(IDC_DILITATION_2_3, OnDilitation23)
        ON_BN_CLICKED(IDC_DILITATION_3, OnDilitation3)
        ON_BN_CLICKED(IDC_DILITATION_GT3, OnDilitationGt3)
        ON_BN_CLICKED (IDC_DILITATION_LT1, OnDilitationLt1)
        ON_BN_CLICKED (IDC_DILITATION_UKN, OnDilitationUkn)
        ON_BN_CLICKED(IDC_CERV_FIRM, OnCervFirm)
        ON_BN_CLICKED(IDC_CERV_MOD, OnCervMod)
        ON_BN_CLICKED(IDC_CERV_SOFT, OnCervSoft)
        ON_BN_CLICKED (IDC_VAGINAL_BLEEDING, OnVaginalBleeding)
        ON_BN_CLICKED(IDC_VB_GROSS, OnVbGross)
        ON_BN_CLICKED(IDC_VB_MED, OnVbMed)
        ON_BN_CLICKED(IDC_VB_TRACE, OnVbTrace)
        ON_BN_CLICKED(IDC_2_COMP, On2Comp)
        ON_BN_CLICKED(IDC_2_COMP_1, On2Compl)
        ON_BN_CLICKED(IDC_2_COMP_2, On2Comp2)
        ON_BN_CLICKED(IDC_2_COMP_3, On2Comp3)
        ON_BN_CLICKED(IDC_PATIENT_COMP_1, OnPatientCompl)
        ON_BN_CLICKED(IDC_PC1_1_3, OnPc113)
        ON_BN_CLICKED(IDC_PC1_10_12, OnPc11012)
        ON_BN_CLICKED(IDC_PC1_4_6, OnPc146)
        ON_BN_CLICKED(IDC_PC1_7_9, OnPc179)
        ON_BN_CLICKED(IDC_PC1_GT12, OnPc1Gt12)
        ON_BN_CLICKED(IDC_PC1_LT1, OnPc1Lt1)
        ON_BN_CLICKED(IDC_EO_ASIAN, OnEoAsian)
        ON_BN_CLICKED(IDC_EO_BLACK, OnEoBlack)
        ON_BN_CLICKED(IDC_EO_HISPANIC, OnEoHispanic)
        ON_BN_CLICKED(IDC_EO_NATIVE_AMERICAN, OnEoNativeAmerican)
        ON_BN_CLICKED(IDC_EO_OTHER, OnEoOther)
        ON_BN_CLICKED(IDC_EO_WHITE, OnEoWhite)
        ON_BN_CLICKED(IDC_MS_DIVORCED, OnMsDivorced)
        ON_BN_CLICKED(IDC_MS_LWP, OnMsLwp)
        ON_BN_CLICKED(IDC_MS_MARRIED, OnMsMarried)
        ON_BN_CLICKED(IDC_MS_OTHER, OnMsOther)
        ON_BN_CLICKED(IDC_MS_SINGLE, OnMsSingle)
        ON_BN_CLICKED(IDC_MS_WIDOWED, OnMsWidowed)
        //}}AFX_MSG_MAP
```

```
END_MESSAGE_MAP()

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
// CPTDInp message handlers

BOOL CPTDInp::OnInitDialog()
{
      CDialog::OnInitDialog();

      // TODO: Add extra initialization here
      //MoveWindow(0,-250,500,500);       // one way to handle large
dialogs

      return TRUE;              // return TRUE    unless you set the focus to
a control
}

void CPTDInp::OnRButtonDown(UINT nFlags, CPoint point)
{
      // TODO: Add your message handler code here and/or call default CRect
rect;       GetWindowRect(&rect);
      CRect Desk;
      GetDesktopWindow( )->GetWindowRect (&Desk);
      //char str[256];
      //sprintf (str, "t %d l %d b %d r %d \n t %d l %d b %d r %d ",
      //    rect. top, rect.left, rect. bottom, rect. right,
      //    Desk.top, Desk.left, Desk.bottom, Desk.right);
      //AfxMessageBox(str);
      if(rect.top < 0 ) {
            rect.bottom = rect.bottom - rect.top;
            rect.top = 0;
            MoveWindow(rect);
      } else if (rect.bottom > Desk.bottom) {
            rect.top = Desk.bottom - 3 - (rect.bottom - rect.top);
            rect.bottom = Desk.bottom 3;
            MoveWindow(rect);
      }

      CDialog::OnRButtonDown(nFlags, point);
}

void CPTDInp::OnAcogN()
{
      // get current values from dialog
      UpdateData(TRUE);

      if(m_ACOG_N) {
            m_ACCOG_Y = FALSE;
      }

      // update dialog with new data
      UpdateData(FALSE);
}

void CPTDInp::OnAcogY()
{
      // get current values from dialog
      UpdateData(TRUE);

      if(m_ACOG_Y) (
```

```
            m_ACOG_N = FALSE;
      }

      // update dialog with new data
      UpdateData(FALSE);

}

void CPTDInp::OnFfnNeg()
{
      // get current values from dialog
      UpdateData(TRUE);

      if(m_FFN_Neg) {
            m_FFN_Pos = FALSE;
      }

      // update dialog with new data
      UpdateData(FALSE);

}

void CPTDInp::OnFfnPos()
{
      // get current values from dialog
      UpdateData(TRUE);

      if(m_FFN_Pos) {
            m_FFN_Neg = FALSE;
      }

      // update dialog with new data
      UpdateData(FALSE);

}

void CPTDInp: : OnMgQuads()
{
      // get current values from dialog
      updateData(TRUE);

      if(m_multipleGestationQuads) {
            m_MultipleGestation = TRUE;
            m_MultipleGestationTwins = FALSE;
            m_MultipleGestationTriplets = FALSE;
      } else {
            if(m_MultipleGestationTwins ++ FALSE &&
                  m_MultipleGestationTriplets == FALSE ) {
                  m_MultipleGestation = FALSE;
            }
      }

      // update dialog with new data
      UpdateData(FALSE);

}

void CPTDInp::OnLMgTriplets()
{
      // get current values from dialog
      UpdateData(TRUE);
```

```
        if(m_MultipleGestationTriplets) {
                m_MultipleGestation = TRUE;
                m_MultipleGestationQuads = FALSE;
                m_MultipleGestationTwins = FALSE;
        } else {
                if ( m_MultipleGestationQuads == FALSE &&
                        m_MultipleGestationTwins == FALSE ) {
                        m_MuItipleGestation = FALSE;
                }
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OriMgTwins()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_MultipleGestationTwins) {
                m_MultipleGestation = TRUE;
                m_MultipleGestationQuads = FALSE;
                m_MultipleGestationTriplets = FALSE;
        } else {
                if( m_MultipleGestationQuads == FALSE &&
                        m_MultipleGestationTriplets == FALSE ) {
                        m_MultipleGestation = FALSE;
                }
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnMultGest()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_MultipleGestation) {
        }else {
                if(((CPTDinpApp*)AfxGetApp())->ClearSubfields) {
                        m_MultipleGestationQuads = FALSE;
                        m_MultipleGestationTriplets = FALSE;
                        m_MultipleGestationTwins = FALSE;
                }
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnDilitation1()
{
        // get current values from dialog
        UpdateData(TRUE);
```

```
        if(m_Dilitation1) {
                m_Dilitation1_2 = FALSE;
                m_Dilitation2 = FALSE;
                m_Dilitation2_3 = FALSE;
                m_Dilitation3 = FALSE;
                m_DilitationGt3 = FALSE;
                //m_Dilitation1 = FALSE;
                m_DilitationLt1 = FALSE;
                m_DilitationUkn = FALSE;
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnDilitation12()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_Dilitation1_2) {
                //m_Dilitation1_2 = FALSE;
                m_Dilitation2 = FALSE;
                m_Dilitation2_3 = FALSE;
                m_Dilitation3 = FALSE;
                m_DilitationGt3 = FALSE;
                m_Dilitation1 = FALSE;
                m_DilitationLt1 = FALSE;
                m_DilitationUkn = FALSE;
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnDilitation2()
{

        // get current values from dialog
        UpdateData(TRUE);

        if(m_Dilitation2)
                m_Dilitation1_2 = FALSE;
                //m_Dilitation2 = FALSE;
                m_Dilitation2_3 = FALSE;
                m_Dilitation3 = FALSE;
                m_DilitationGt3 = FALSE;
                m_Dilitation1 + FALSE;
                m_DilitationLt1 = FALSE;
                m_DilitationUkn = FALSE;
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnDilitation23()
{
```

```
        // get current values from dialog
        UpdateData(TRUE);

        if(m_Dilitation2_3) {
              m_Dilitation1_2 = FALSE;
              m_Dilitation2 = FALSE;
              //m_Dilitation2_3 = FALSE;
              m_DI-litation3 = FALSE;
              m_DilitationGt3 = FALSE;
              m_Dilitation1 = FALSE;
              m_DilitationLt1 = FALSE;
              m_DilitationUkn = FALSE;
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnDilitation3()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_Dilitation3) {
              m_Dilitation1_2 = FALSE;
              m_Dilitation2 = FALSE;
              m_Dilitation2_3 = FALSE;
              //m_Dilitation3 = FALSE;
              m_DilitationGt3 = FALSE;
              m_Dilitation1 = FALSE;
              m_DilitationLt1 = FALSE;
              m_DilitationUkn = FALSE;
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnDilitationGt3()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_DilitationGt3) {
              m-Dilitation1_2 = FALSE;
              m_Dilitation2 = FALSE;
              m_Dilitation2_3 = FALSE;
              m_Dilitation3 = FALSE;
              //m_DilitationGt3 = FALSE;
              m_Dilitation1 = FALSE;
              m_DilitationLt1 = FALSE;
              m_DilitationUkn = FALSE;
        }

        // update dialog with new data
        UpdateData(FALSE);

}
```

```
void CPTDInp::OnDilitationLt1()
{
	// get current values from dialog
	UpdateData(TRUE);

	if(m_DilitationLt1) {
		m_Dilitation1_2 = FALSE;
		m_Dilitation2 = FALSE;
		m_Dilitation2_3 = FALSE;
		m_Dilitation3 = FALSE;
		m_DilitationGt3 = FALSE;
		m_Dilitation1 = FALSE;
		//m_DilitationLt1 = FALSE;
		m_DilitationUkn = FALSE;
	}

	// update dialog with new data
	UpdateData(FALSE);

}

void CPTDInp::OnDilitationUkn()
{
	// get current values from dialog
	UpdateData(TRUE);

	if(m_DilitationUkn)
		m_Dilitation1_2 = FALSE;
		m_Dilitation2 = FALSE;
		m_Dilitation2_3 = FALSE;
		m_Dilitation3 = FALSE;
		m_DilitationGt3 = FALSE;
		m_Dilitation1 = FALSE;
		m_DilitationLt 1= FALSE;
		//m_DilitationUkn = FALSE;
	}

	// update dialog with new data
	UpdateData(FALSE);

}

void CPTDInp::OnCervFirm()
{
	// get current values from dialog
	UpdateData(TRUE);

	if(m_CervFirm) {
		m_CervMod = FALSE;
		m_CervSoft = FALSE;
}

	// update dialog with new data
	UpdateData(FALSE);

}

void CPTDInp::OnCervMod()
{
	// get current values from dialog
	UpdateData(TRUE);
```

```
        if(m_CervMod) {
                m_CervFirm = FALSE;
                m_CervSoft = FALSE;
}

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnCervSoft()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_CervSoft) {
                m_CervMod = FALSE;
                m_CervFirm = FALSE;
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp: : OnVaginalBleeding()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_VaginalBleeding) {
        } else {
                if(((CPTDinpApp*)AfxGetApp())->ClearSubfields) {
                        m_VaginalBleedingGross = FALSE;
                        m_VaginalBleedingMed = FALSE;
                        m_VaginalBleedingTrace = FALSE;
                }
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDinp::OnVbGross()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_VaginalBleedingGross) {
                m_VaginalBleeding = TRUE;
                m_VaginalBleedingMed = FALSE;
                m_VaginalBleedingTrace = FALSE;
        } else {
                if(m_VaginalBleedingMed == FALSE &&
                        m_VaginalBleedingTrace == FALSE ) {
                        m_VaginalBleeding = FALSE;
                }
        }

        // update dialog with new data
```

```
        UpdateData(FALSE);

}

void CPTDInp::OnVbMed()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_VaginalBleedingMed) {
                m_VaginalBleedingGross = FALSE;
                m_VaginalBleeding = TRUE;
                m_VaginalBleedingTrace = FALSE;
        }  else {
                if(m_VaginalBleedingGross == FALSE &&
                        m_VaginalBleedingTrace ++ FALSE ) {
                        m_VaginalBleeding = FALSE;
                }
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnVbTrace()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_VaginalBleedingTrace) {
                m_VaginalBleedingGross = FALSE;
                m_VaginalBleedingMed = FALSE;
                m_VaginalBleeding = TRUE;
        } else {
                if(m_VaginalBleedingMed == FALSE
                        m_VaginalBleedingGross == FALSE ) {
                        m_VaginalBleeding = FALSE;
                }
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::On2Comp()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_2_COMP) {
        } else {
                if(((CPTDinpApp*)AfxGetApp())->ClearSubfields) {
                        m_2_COMP_1 = FALSE;
                        m_2_COMP_2 = FALSE;
                        m_2_COMP_3 = FALSE;
                }
        }

        // update dialog with new data
```

```
        UpdateData(FALSE);

}

void CPTDInp::On2Compl()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_2_COMP_1) {
                m_2_COMP = TRUE;
                m_2_COMP_2 = FALSE;
                m_2_COMP_3 = FALSE;
        } else {
                if(m_2_COMP == 2 - FALSE &&
                        m_2_COMP_3 == FALSE ) {
                        m_2_COMP = FALSE;
                }
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::on2Comp2()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_2_COMP_2) {
                m_2_COMP = TRUE;
                m_2_COMP_1 = FALSE;
                m_2_COMP_3 = FALSE;
        } else {
                if(m_2_COMP_1 == FALSE &&
                        m_2_COMP_3 == FALSE ) {
                        m_2_COMP = FALSE;
                }
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::on2Comp3()
{
        // get current values from dialog
        UpdateData(TRUE);

        if (m_2_COMP_3) {
                m_2_COMP = TRUE;
                m_2_COMP 2 = FALSE;
                m_2_COMP_1 = FALSE;
        } else {
                if(m_2_COMP_2 == FALSE &&
                        m_2_COMP_1 == FALSE ) {
                        m_2_COMP = FALSE;
                }
        }
```

```
        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnPatientCompl()
{

        // get current values from dialog
        UpdateData(TRUE);

        if(m_PatientCompl) {
        } else {
                if(((CPTDinpApp*)AfxGetApp())->ClearSubfields) {
                        m_PatCompl_LT1 = FALSE;
                        m_PatCompl_1_3 = FALSE;
                        m_PatCompl_4_6 = FALSE;
                        m_PatCompl_7_9 = FALSE;
                        m_PatCompl_10_12 = FALSE;
                        m_PatCompl__GT12 = FALSE;
                }
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnPc113()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_PatCompl_1_3) {
                m_PatCompl_LT1 = FALSE;
                m_PatientCompl = TRUE;
                m_PatCompl_4_6 = FALSE;
                m_PatCompl_7_9 = FALSE;
                m_PatCompl_10_12 = FALSE;
                m_PatCompl_GT12 = FALSE;
        } else {
                if(m_PatCompl_LT1 == FALSE &&
                        m_PatCompl_1_3 == FALSE &&
                        m_PatCompl_4_6 == FALSE &&
                        m_PatCompl_7_9 == FALSE &&
                        m_PatCompl_10_12 == FALSE
                        m_PatCompl_GT12 == FALSE ) {
                        m_PatientCompl = FALSE;
                }
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnPc11012()
{
        // get current values from dialog
        UpdateData(TRUE);
```

```
        if(m_PatComp1_10_12) {
              m_PatComp1_LT1 = FALSE;
              m_PatComp1_1_3 = FALSE;
              m_PatComp1_4_6 = FALSE;
              m_PatComp1_7_9 = FALSE;
              m_PatientComp1 = TRUE;
              m_PatComp1_GT12 = FALSE;
        } else {

        if(m_PatComp1_LT1 == FALSE &&
              m_PatComp1_1_3 = FALSE &&
              m_PatComp1_4_6 == FALSE &&
              m_PatComp1_7_9 == FALSE
              m_PatComp1_10_12 == FALSE &&
              m_PatComp1_GT12 == FALSE ) {
              m_PatientComp1 = FALSE;
              }
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnPc146()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_PatComp1_4_6) {
              m_PatComp1_LT1 = FALSE;
              m_PatComp1_1_3 = FALSE;
              m_PatientComp1 = TRUE;
              m_PatComp1_7_9 = FALSE;
              m_PatComp1_10_12 = FALSE;
              m_PatComp1_GT12 = FALSE;
        } else {
              if(m_PatComp1_LT1 == FALSE &&
                    m_PatComp1_1_3 == FALSE &&
                    m_PatComp1_4_6 == FALSE &&
                    m_PatComp1_7_9 == FALSE &&
                    m_PatComp1_10_12 == FALSE &&
                    m_PatComp1_GT12 == FALSE ) {
                    m_PatientComp1 = FALSE;
              }
        }

        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnPc179()
{
        // get current values from dialog
        UpdateData(TRUE);

        if(m_PatComp1_7_9) {
              m_PatComp1_LT1 = FALSE;
              m_PatComp1_1_3 = FALSE;
              m_PatComp1_4_6 = FALSE;
```

```
            m_PatientComp1 = TRUE;
            m_PatComp1_10_12 = FALSE;
            m_PatComp1_GT12 = FALSE;
      } else {
            if(m_PatComp1_LT1 == FALSE &&
                  m_PatComp1_1_3 == FALSE &&
                  m_PatComp1_4_6 == FALSE &&
                  m_PatComp1_7_9 == FALSE &&
                  m_PatComp1_10_12 == FALSE &&
                  m_PatComp1_GT12 ==      FALSE ) {
                  m_PatientComp1 = FALSE;
            }
      }

      // update dialog with new data
      UpdateData(FALSE);

}

void CPTDInp::OnPc1Gt12()
{
      // get current values from dialog
      UpdateData(TRUE);

      if(m_PatComp1_GT12) {
            m_PatComp1_LT1 = FALSE;
            m_PatComp1_1_3 = FALSE;
            m_PatComp1_4_6 = FALSE;
            m_PatComp1_7_9 = FALSE;
            m_PatComp1_10_12 = FALSE;
            m_PatientComp1 = TRUE;
      } else {
            if(m_PatComp1_LT1 == FALSE &&
                  m_PatComp1_1_3 == FALSE &&
                  m_PatComp1_4_6 == FALSE &&
                  m_PatComp1_7_9 == FALSE &&
                  m_PatComp1_10_12 == FALSE &&
                  m_PatComp1_GT12 == FALSE ) {
                  m_PatientComp1 = FALSE;
            }
      }

      // update dialog with new data
      UpdateData(FALSE);

}

void CPTDInp::OnPc1Lt1()
{
      // get current values from dialog
      UpdateData(TRUE);

      if(m_PatComp1_LT1) {
            m_PatientComp1 = TRUE;
            m_PatComp1_1_3 = FALSE;
            m_PatComp1_4_6 = FALSE;
            m_PatComp1_7_9 = FALSE;
            m_PatComp1_10_12 = FALSE;
            m_PatComp1-GT12 = FALSE;
      } else {
            if(m_PatComp1_LT1 == FALSE &&
```

```
                        m_PatComp1_1_3 == FALSE &&
                        m_PatComp1_4_6 == FALSE &&
                        m_PatComp1_7_9 == FALSE &&
                        m_PatComp1_10_12 == FALSE &&
                        m_PatComp1_GT12 == FALSE ) {
                        m_PatientComp1 = FALSE;
                }
        }
        // update dialog with new data
        UpdateData(FALSE);

}

void CPTDInp::OnEoAsian()
{
#ifdef NOT
        // get current values from dialog
        UpdateData(TRUE);

        if(m_EthnicOriginAsian) {
                //m_EthnicOriginAsian = FALSE;
                m_EthnicOriginBlack = FALSE;
                m_EthnicOriginHispanic = FALSE;
                m_EthnicOriginNativeAmerican = FALSE;
                m_EthnicOriginOther = FALSE;
                m_EthnicOriginWhite = FALSE;
        }

        // update dialog with new data
        UpdateData(FALSE);
#endif
}

void CPTDInp::OnEoBlack()
{
#ifdef NOT
        // get current values from dialog
        UpdateData(TRUE);

        if(m_EthnicOriginBlack) {
                m_EthnicOriginAsian = FALSE;
                //m_EthnicOriginBlack = FALSE;
                m_EthnicOriginHispanic = FALSE;
                m_EthnicOriginNativeAmerican = FALSE;
                m_EthnicOriginOther = FALSE;
                n_EthnicOriginWhite = FALSE;
        }

        // update dialog with new data
        UpdateData(FALSE);
#endif
}

void CPTDInp::OnEoHispanic()
{
#ifdef NOT
        // get current values from dialog
        UpdateData(TRUE);

        if(m_EthnicOriginHispanic) {
                m_EthnicOriginAsian = FALSE;
```

```
            m_EthnicOriginBlack = FALSE;
            //m_EthnicOriginHispanic = FALSE;
            m_EthnicOriginNativeAmerican = FALSE;
            m_EthnicOriginOther = FALSE;
            m_EthnicOriginWhite = FALSE;
}

      // update dialog with new data
      UpdateData(FALSE);
#endif
}

void CPTDInp::OnEoNativeAmerican()
{
#ifdef NOT
      // get current values from dialog
      UpdateData(TRUE);

      if(m_EthnicOriginNativeAmerican) {
            m_EthnicOriginAsian = FALSE;
            m_EthnicOriginBlack = FALSE;
            m_EthnicOriginHispanic = FALSE;
            //m_EthnicOriginNativeAmerican = FALSE;
            m_EEhnicOriginOther = FALSE;
            m_EthnicOriginWhite = FALSE;
}
      // ate dialog with new data
      UpdateData(FALSE);
#endif
}

void CPTDInp::OnEoOther()
{
#ifdef NOT
      // get current values from dialog
      UpdateData(TRUE);

      if(m_EthnicOriginOther) {
            m_EthnicOriginAsian = FALSE;
            m_EthnicOriginBlack = FALSE;
            m_EthnicOriginHispanic = FALSE;
            m_EthnicOriginNativeAmerican = FALSE;
            //m_EthnicOriginOther = FALSE;
            m_EthnicOriginWhite = FALSE;
}
      // update dialog with new data
      UpdateData(FALSE);
#endif
}

void CPTDInp::OnEowhite()
{
#ifdef NOT
      // get current values from dialog
      UpdateData(TRUE);

      if(m_EthnicOriginWhite) {
            m_EthnicOriginAsian = FALSE;
            m_EthnicOriginBlack = FALSE;
            m_EthnicOriginHispanic = FALSE;
            m_EthnicOriginNativeAmerican = FALSE;
```

```
            m_EthnicOriginOther = FALSE;
            //m_EthnicOriginWhite = FALSE;
}

      // update dialog with new data
      UpdateData(FALSE);
#endif
}

void CPTDInp::OnLMsDivorced()
{
      // get current values from dialog
      UpdateData(TRUE);

      if(m_MaritalStatusDivorced) {
            //m_MaritalStatusDivorced = FALSE;
            m_MaritalStatusLWP = FALSE;
            m_MaritalStatusMarried = FALSE;
            m_MaritalStatusOther = FALSE;
            m_MaritalStatusSingle = FALSE;
            m_MaritalStatusWidowed = FALSE;
      }

      // update dialog with new data
      UpdateData(FALSE);
}

void CPTDInp::OnMsLwp()
{
      // get current values from dialog
      UpdateData(TRUE);

      if(m_MaritalStatusLWP) {
            m_MaritalStatusDivorced = FALSE;
            //m_MaritalStatusLWP = FALSE;
            m_MaritalStatusMarried = FALSE;
            m_MaritalStatusOther = FALSE;
            m_MaritalStatusSingle = FALSE;
            m_MaritalStatusWidowed = FALSE;
}

      // update dialog with new data
      UpdateData(FALSE);
}

void CPTDInp::OnMsMarried()
{
      // get current values from dialog
      UpdateData(TRUE);

      if(m_MaritalStatusMarried) {
            m_MaritalStatusDivorced = FALSE;
            m_MaritalStatusLWP = FALSE;
            //m_MaritalStatusMarried = FALSE;
            m_MaritalStatusOther = FALSE;
            m_MaritalStatusSingle = FALSE;
            m_MaritalStatusWidowed = FALSE;
      }

      // update dialog with new data
      UpdateData(FALSE);
```

```
}

void CPTDInp::OnMsOther()
{
      // get current values from dialog
      UpdateData(TRUE);

      if(m_MaritalStatusOther) {
            m_MaritalStatusDivorced = FALSE;
            m_MaritalStatusLWP = FALSE;
            m_MaritalStatusMarried = FALSE;
            //m_MaritalStatusOther = FALSE;
            m_MaritalStatusSingle = FALSE;
            m_MaritalStatusWidowed = FALSE;
      }

      // update dialog with new data
      UpdateData(FALSE);
}

void CPTDInp::OnMsSingle()
{
      // get current values from dialog
      UpdateData(TRUE);

      if(m_MaritalStatusSingle) {
            m_MaritalStatusDivorced = FALSE;
            m_MaritalStatusLWP = FALSE;
            m_MaritalStatusMarried = FALSE;
            m_MaritalStatusOther = FALSE;
            //m_MaritalStatusSingle = FALSE;
            m_MaritalStatusWidowed = FALSE;
}

      // update dialog with new data
      UpdateData(FALSE);
}

void CPTDInp::OnMsWidowed()
{
      // get current values from dialog
      UpdateData(TRUE);

      if(m_MaritalStatusWidowed) {
            m_MaritalStatusDivorced = FALSE;
            m_MaritalStatusLWP = FALSE;
            m_MaritalStatusMarried = FALSE;
            m_MaritalStatusOther = FALSE;
            m_MaritalStatusSingle = FALSE;
            //m_MaritalStatusWidowed = FALSE;
}

      // update dialog with new data
      UpdateData(FALSE);
}

void CPTDInp::OnOK()
{

double val;
char str[32];
```

```
char *ps;
int m, d, y;

      UpdateData(TRUE);

      // Check the Date of Birth field
      // parse the data from mm/dd/yyyy

      strcpy(str, m_DATE_OF_BIRTH);
      m = atoi(str);
      if( m < 1 || m > 12) {
            AfxMessageBox("Please enter date in mm/dd/yy format. Month out
of range");
            return;
      }
      ps = strchr(str,'/');
      if( ps == NULL ) {
            AfxMessageBox ("Please enter date in mm/dd/yy format.");
            return;
      } else {
            ps++;
            d = atoi(ps);
            if( d < 1 || d > 31 ) {
                  AfxMessageBox ("Please enter date in mm/dd/yy format. Day
out of range");
                  return;
            }
      }

      ps = strchr(ps, '/');
      if( ps == NULL ) {
            AfxMessageBox ("Please enter date in mm/dd/yy format.");
            return;
      } else {
            ps++;
            y = atoi(ps);
            if( y < 30 ) y += 2000;
            if( y < 99 ) y += 1900;
      }

      // Check all boxes that are used by the network
      if(
            m_EthnicOriginAsian == FALSE &&
            m_EthnicOriginBlack == FALSE &&
            m_EthnicoriginHispanic == FALSE &&
            m_EthnicOriginNativeAmerican == FALSE &&
            m_EthnicOriginOther == FALSE &&
            m_EthnicOriginWhite == FALSE
      ) {
            AfxMessageBox ("Please make selection for Ethnic Origin");
            return;
      }

      if(
            m_MaritalStatusDivorced == FALSE &&
            m_MaritalStatusLWP == FALSE &&
            m_MaritalStatusMarried == FALSE &&
            m_MaritalStatusOther == FALSE &&
            m_MaritalStatusSingle == FALSE &&
            m_MaritalStatusWidowed == FALSE
      ) {
```

```
            AfxMessageBox ("Please make selection for Marital Status");
            return;
      }

      if(
            m_CervFirm == FALSE &&
            m_CervMod == FALSE &&
            m_CervSoft == FALSE
      ) {
            // AfxMessageBox ("Please make selection for Cervical
Consistancy");
            //return;
      }

      if(
            m_Dilitation1_2 == FALSE &&
            m_Dilitation2 == FALSE &&
            m_Dilitation2_3 == FALSE &&
            m_Dilitation3 == FALSE &&
            m_DilitationGt3 == FALSE &&
            m_Dilitation1 == FALSE &&
            m_DilitationLt1 == FALSE &&
            m_DilitationUkn == FALSE
      ) {
            AfxMessageBox ("Please make selection for Dilatation");
            return;
      }

      if(
            m_FFN_Neg == FALSE &&
            m_FFN_Pos == FALSE
      ) {
            AfxMessageBox ("Please make selection for fFN Result");
            return;
      }

      val = (double)atof(m_EGAbySONO);
      if( val == 0.0 ) {
            AfxMessageBox ("Please enter value for EGA by SONO");
            return;
      }
      if( val < 24.0 || val > 45.0 ) {
            AfxMessageBox ("Value for EGA by SONO must be between 24.0 and
45.0 weeks");
            return;
      }

      val = (double)atof(m_EGAbyLMP);
      if(val == 0.0 ) {
            AfxMessageBox ("Please enter value for EGA by LMP");
            return;
      }
      if( val < 24.0 || val > 45.0 ) {
            AfxMessageBox("Value for EGA by LMP must be between 24.0 and
45.0 weeks");
            return;
      }

      val = (double)atof(m_EGAatSample);
      if( val == 0.0 ) {
            AfxMessageBox ("Please enter value for EGA at Sample");
```

```
            return;
      }
      if( val < 24.0 || val > 45.0 ) {
            AfxMessageBox ("Value for EGA at Sample must be between 24.0
and 45.0 weeks");
            return;
      }

      strcpy(str,m_GRAVITY);
      if(str[0] == 0 ) {
            AfxMessageBox ("Please enter value for Gravity");
            return;
      }

      strcpy(str,m_PARITY);
      if( str[0] == 0 ) {
            AfxMessageBox ("Please enter value for Parity");
            return;
      }

      strcpy(str,m_ABORTIONS);
      if( str[0] == 0 ) {
            AfxMessageBox ("Please enter value for Abortions");
            return;
      }

      if(m_2_COMP == TRUE &&
            m_2_COMP_1 == FALSE &&
            m_2_COMP_2 == FALSE &&
            m_2_COMP_3 == FALSE ) {
            AfxMessageBox ("Please make selection under History of Preterm
Delivery");
            return;
      }

      if(m_VaginalBleedingMed == FALSE &&
            m_VaginalBleedingGross == FALSE &&
            m_VaginalBleeding == TRUE &&
            m_VaginalBleedingTrace == FALSE ) {
            AfxMessageBox ("Please make selection under Vaginal Bleeding");
            return;
      }

      if(m_MultipleGestation == TRUE &&
            m_MultipleGestationQuads == FALSE &&
            m_MultipleGestationTriplets == FALSE &&
            m_MultipleGestationTwins == FALSE ) {
            AfxMessageBox ("Please make selection under Multiple
Gestation");
            return;
      }

      if(m_PatientComp1 == TRUE &&
            m_PatComp1-LT1 == FALSE &&
            m_PatComp1_1_3 == FALSE &&
            m_PatComp1_4_6 == FALSE &&
            m_PatComp1_7_9 == FALSE &&
            m_PatComp1_10_12 == FALSE &&
            m_PatComp1_GT112 == FALSE ) {
            AfxMessageBox ("Please select Number/hr under Uterine
contractions");
```

```
            return;
      }

      CDialog::OnOK();
}



// PTDDg11.h : header file
//

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// CPTDInp dialog

class CPTDInp : public CDialog
{
// Construction
public:
      CPTDInp(CWnd* pParent = NULL); // standard constructor

// Dialog Data
      //{{AFX_DATA(CPTDInp)
      enum { IDD = IDD_D_PTD_INP };
      CString     m_DATE_OF_BIRTH;
      CString     m_NAME_F;
      CString     m_NAME_L;
      CString     m,_NAME_MI;
      BOOL        m_1_COMP;
      BOOL        m_2_COMP;
      BOOL        m_3_COMP;
      BOOL        m_4_COMP;
      BOOL        m_5_COMP;
      BOOL        m_6_COMP;
      BOOL        m_ACOG_N;
      BOOL        m_ACOG_Y;
      BOOL        m_Antibiotics;
      BOOL        m_AntiHyper;
      BOOL        m_CervCerclage;
      BOOL        m_CervFirm;
      BOOL        m_CervMod;
      BOOL        m_CervSoft;
      BOOL        m_Corticosteroids;
      BOOL        m_Dilitation1_2;
      BOOL        m_Dilitation2;
      BOOL        m_Dilitation2_3;
      BOOL        m_Dilitation3;
      BOOL        m_DilitationGt3;
      BOOL        m_Dilitation1;
      BOOL        m_DilitationLt1;
      BOOL        m_DilitationUkn;
      CString     m_EGAatSample;
      CString     m_EGAbyLMP;
      CString     m_EGAbySONO;
      BOOL        m_EthnicOriginAsian;
      BOOL        m_EthnicOriginBlack;
      BOOL        m_EthnicoriginHispanic;
      BOOL        m_EthnicoriginNativeAmerican;
      BOOL        m_EthnicOriginOther;
```

```
        BOOL        m_EthnicOriginWhite;
        BOOL        m_FFN_Neg;
        BOOL        m_FFN_Pos;
        BOOL        m_GestationalDiabetes;
        BOOL        m_HypertensiveDisorders;
        BOOL        m_Insulin;
        CString     m_LadID;
        BOOL        m_MedicationNone;
        BOOL        m_MedicationUnknown;
        BOOL        m_MultipleGestationQuads;
        BOOL        m_MultipleGestationTriplets;
        BOOL        m_MultipleGestationTwins;
        BOCL        m_MaritalStatusDivorced;
        BOOL        m_MaritalStatusLWP;
        BOOL        m_MaritalStatusMarried;
        BOOL  m_MaritalStatusOther;
        BOOL        m_MaritalStatusSingle;
        BOOL        m_MaritalStatusWidowed;
        BOOL        m_MultipleGestation;
        BOOL        m_PatientComp1;
        BOOL        m_PatientComp2;
        BOOL        m_PatientComp3;
        BOOL        m_PatientComp4;
        BOOL        m_PatientComp5;
        BOOL        m_PatientComp6;
        BOOL        m_Tocolytics;
        BOOL        m_UtCervAbnormal;
        BOOL        m_VaginalBleeding;
        BOOL        m_VaginalBleedingGross;
        BOOL        m_VaginalBleedingMed;
        BOOL        m_VaginalBleedingTrace;
        BOOL        m_2_COMP_1;
        BOOL        m_2_COMP_2;
        BOOL        m_2_COMP_3;
        CString     m_ABORTIONS;
        CString     m_PARITY;
        BOOL        m_PatComp1_1_3;
        BOOL        m_PatComp1_10_12;
        BOOL        m_PatComp1_4_6;
        BOOL        m_PatComp1_7_9;
        BOOL        m_PatComp1_GT12;
        BOOL        m_PatComp1_LT1;
        CString     m_GRAVITY;
        //}}AFX_DATA

        Implementation
protected:
        virtual void DoDataExchange(CDataExchange* pDX);  // DDX/DDV support

        // Generated message map functions
        //{{AFX_MSG(CPTDInp)
        virtual             BOOL        OnInitDialog();
        afx_msg     void        OnRButtonDown(UINT nFlags, CPoint point);
        afx_msg     void        OnAcogN();
        afx_msg     void        OnAcogY();
        afx_msg     void        OnFfnNeg();
        afx_msg     void        OnFfnPos();
        afx_msg     void        OnMgQuads();
        afx_msg     void        OnMgTriplets();
        afx_msg     void        OnMgTwins();
        afx_msg     void        OnMultGest();
```

```
        afx_msg     void        OnDilitation1();
        afx_msg     void        OnDilitation12();
        afx_msg     void        OnDilitation2();
        afx_msg     void        OnDilitation23();
        afx_msg     void        OnDilitation3();
        afx_msg     void        OnDilitationGt3();
        afx_msg     void        OnDilitationLt1();
        afx_msg     void        OnDilitationUkn();
        afx_msg     void        OnCervFirm();
        afx_msg     void        OnCervMod();
        afx_msg     void        OnCervSoft();
        afx_msg     void        OnVaginalBleeding();
        afx_msg     void        OnVbGross();
        afx_msg     void        OnVbMed();
        afx_msg     void        OnVbTrace();
        afx_msg     void        On2Comp();
        afx_msg     void        On2Comp1();
        afx_msg     void        On2Comp2();
        afx_msg     void        On2Comp3();
        afx_msg     void        OnPatientComp1();
        afx_msg     void        OnPc113();
        afx_msg     void        OnPc11012();
        afx_msg     void        OnPc146();
        afx_msg     void        OnPc179();
        afx_msg     void        OnPc1Gt12();
        afx_msg     void        OnPc1Lt1();
        virtual           void  OnOK();
        afx_msg     void        OnEoAsian();
        afx_msg     void        OnEoBlack();
        afx_msg     void        OnEoHispanic();
        afx_msg     void        OnEoNativeAmerican();
        afx_msg     void        OnEoOther();
        afx_msg     void        OnEoWhite();
        afx_msg     void        OnMsDivorced();
        afx_msg     void        OnMsLwp();
        afx_msg     void        OnMsMarried();
        afx_msg     void        OnMsOther();
        afx_msg     void        OnMsSingle();
        afx_msg     void        OnEoWidowed();
        //}}AFX_MSG
        DECLARE_MESSAGE_MAP()
        };
```

```
// ptdgoto.cpp : implementation file
/

#include "stdafx.h"
#include "ptdinp.h"
#include "ptdgoto.h"

#ifdef          DEBUG
#undef      THIS_FILE
static char BASED_CODE THIS_FILE[] = FILE;
#endif
```

```
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
// CPtdGoto dialog

CPtdGoto::CPtdGoto(CWnd* pParerit /*=NULL*/)
      : CDialog(CPtdGoto::IDD, pParent)
{
      //{{AFX_DATA_INIT(CPtdGoto)
      m_IDStr = "";
      m_GotoMode = -1;
      m_RecNum = 0;
      //}}AFX_DATA_INIT
}

void CPtdGoto::DoDataExchange(CDataExchange* pDX)
{
      CDialog::DoDataExchange(pDX);
      //{{AFX_DATA_MAP(CPtdGoto)
      DDX_Text(pDX, IDC_E_GOTO_ID_NUM, m_IDStr);
      DDX_Radio(pDX, IDC_R_GOTO_SEL1, m_GotoMode);
      DDX_Text (pDX, IDC_E_GOTO_REC_NUM, m_RecNum);
      DDV_MinMaxLong(pDX, m_RecNum, 0, 100000);
      //}}AFX_DATA_MAP
}
BEGIN_MESSAGE_MAP(CPtdGoto, CDialog)
      //{{AFX_MSG_MAP(CPtdGoto)
            // NOTE: the ClassWizard will add message map macros here
      //}}AFX_MSG_MAP
END_MESSAGE_MAP()

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
// CPtdGoto message handlers


// ptdgoto.h : header file
//

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
// CPtdGoto dialog

class CPtdGoto : public CDialog
{
// Construction
public:
      CPtdGoto(CWnd* pParent = NULL); // standard constructor

// Dialog Data
      //{{AFX_DATA(CPtdGoto)
      enum { IDD = IDD_D_GOTO };
      CString m_IDStr;
      int   m_GotoMode;
      long  m_RecNum;
      //}}AFX_DATA

// Implementation
protected:
      virtual void DoDataExchange(CDataExchange* pDX); // DDX/DDV support
```

```
        // Generated message map functions
        //{{AFX_MSG(CPtdGoto)
            // NOTE: the ClassWizard will add member functions here
        //}}AFX_MSG
        DECLARE_MESSAGE_MAP()
}



// PTDidoc.cpp : implementation of the CPTDinpDoc class
//

#include "stdafx.h"
#include "PTDinp.h"

#include "PTDidoc.h"
#include "PTDGoto.h"
#include "aa_nets.h"

#ifdef _DEBUG
#undef THIS_FILE
static char BASED_CODE THIS_FILE[] = __FILE__;
#endif

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// CPTDinpDoc

IMPLEMENT_DYNCREATE(CPTDinpDoc, CDocument)

BEGIN_MESSAGE_MAP(CPTDinpDoc, CDocument)
        //{{AFX_MSG_MAP(CPTDinpDoc)
        ON_COMMAND(ID_REC_FIRST, OnRecFirst)
        ON_COMMAND(ID_REC_LAST, OnRecLast)
        ON_COMMAND(ID_REC_NEXT, OnRecNext)
        ON_COMMAND(ID_REC_PREV, OnRecPrev)
        ON_COMMAND(ID_FILE_OPEN, OnFileOpen)
        ON_COMMAND(ID_BLD_NET_FILE, OnBldNetFile)
        ON_COMMAND(ID_REC_GOTO, OnRecGoto)
        ON_COMMAND (ID_FILE_MRU_FILE1, OnFileMruFile1)
        ON_COMMAND (ID_FILE_MRU_FILE2, OnFileMruFile2)
        ON_COMMAND (ID_FILE_MRU_FILE3, OnFileMruFile3)
        ON_COMMAND(ID_FILE_MRU_FILE4, OnFileMruFile4)
        //}}AFX_MSG_MAP
END_MESSAGE_MAP()

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// CPTDinpDoc construction/destruction

CPTDinpDoc::CPTDinpDoc()
{
        CurRecord = 0;
        NumRecords =      0;
        strcpy(PathName,"");
        IDStr = "";
        GotoMode = 0;

        InitializeRec();
        LoadNets();
```

```
        m_NetPos1 = 0.0;
        m_NetNeg1 = 0.0;
        m_NetPos2 = 0.0;
        m_NetNeg2 = 0.0;
        m_NetPos3 = 0.0;
        m_NetNeg3 = 0.0;
}

CPTDinpDoc::~CPTDinpDoc()
{
        (CPTDinpApp*) AfxGetApp())->m_pDoc = NULL;

        FreeNets();

}

BOOL CPTDinpDoc::OnNewDocument()
{
        if (!CDocument::OnNewDocument())
                return FALSE;

        ((CPTDinpApp*)AfxGetApp())->m_pDoc = this;
        // TODO: add reinitialization code here
        // (SDI documents will reuse this document)

        return TRUE;
}

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// CPTDinpDoc serialization

void CPTDinpDoc::Serialize(CArchive& ar)
{
        if (ar.IsStoring())
        {
                // TODO: add storing code here
        }
        else
        {
                // TODO: add loading code here
        }
}

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// CPTDinpDoc diagnostics

#ifdef _DEBUG
void CPTDinpDoc::AssertValid() const
{
        CDocument::AssertValido();
}

void CPTDinpDoc: :Dump (CDumpContext& dc) const
{
        CDocument::Dump(dc);
}
#endif // _DEBUG
```

```
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
// CPTDinpDoc commands

void CPTDinpDoc::OnRecFirst()
{

      CurRecord = 0;
      get_rec(Rec);

}

void CPTDinpDoc::OnRecLast()
{
      CurRecord = NumRecords - 1;
      get_rec(Rec);

}

void CPTDinpDoc::OnRecNext()
{
      CurRecord = min(CurRecord + 1, NumRecords - 1);
      get_rec(Rec);

}

void CPTDinpDoc::OnRecPrev()

      CurRecord = max(CurRecord - 1, 0);
      get_rec(Rec);

}

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////

void CPTDinpDoc::get_rec( char* pRec )
{
FILE *fp;
char *stmp;

      fp = fopen(PathName,"rb");
      if(fp==NULL) {
      } else {
            f seek (fp, (long)((REC_LENGTH + 2L) *CurRecord) , SEEK_SET);
            f read (pRec, sizeof (char), (REC_LENGTH + 2L), fp);
            fclose(fp);
      }

      m_LAB_ID = get fld(pRec,1,12);
      m_NAME_L = get_fld(pRec,13,24);
      m_NAME_F = get_fld(pRec,37,24);
      m_NAME_MI = get_fld(pRec,61,2);
      m_DATE_OF_DATA_ENTRY = get f ld (pRec, 63, 10)  //time
      m_PATIENT_AGE = (double) atof (get_fld (pRec, 73, 20))
      m_DATE_OF_BIRTH = get_fld(pRec,93,10);
      //stmp = get_fld(pRec,103,2);
      //if(stmp[0] == '1') m_ETHNIC_ORIGIN_WHITE = ("1"); else
m_ETHNIC_ORIGIN_WHITE = ("0");
      //if(stmp[0] == '2') m_ETHNIC_ORIGIN_BLACK = ("1"); else
m_ETHNIC_ORIGIN_BLACK = ("0") ;
```

```
      //if(stmp[0] == '3') m_ETHNIC_ORIGIN_ASIAN = ("1"); else
m_ETHNIC_ORIGIN_ASIAN = ("0") ;
      //if(stmp[0] == '4') m_ETHNIC_ORIGIN_HISPANIC = ("1"); else
m_ETHNIC_ORIGIN_HISPANIC = ("0");
      //if(stmp[0] == '5') m_ETHNIC_ORIGIN_NATIVE_AMERICAN = ("1"); else
m_ETHNIC_ORIGIN_NATIVE AMERICAN = ("0");
      //if(stmp[0] == '6') m_ETHNIC_ORIGIN_OTHER = ("1"); else
m_ETHNIC_ORIGIN_OTHER = ("0");
      m_ETHNIC_ORIGIN_WHITE = get_fld(pRec,103,2);
      m_ETHNIC_ORIGIN_BLACK = get_fld(pRec,105,2);
      m_ETHNIC_ORIGIN_ASIAN = get_fld(pRec,107,2);
      m_ETHNIC_ORIGIN_HISPANIC = get_fld(pRec,109,2);
      m_ETHNIC_ORIGIN_NATIVE_AMERICAN = get_fld(pRec,111,2);
      m_ETHNIC_ORIGIN_OTHER = get_fld(pRec,113,2);
      stmp = get_fld(pRec,115,2);
      if(stmp[0] == '1') m_MARITAL_STATUS_SINGLE = ("1"); else
m_MARITAL_STATUS_SINGLE = ("0");
      if(stmp[0] == '2') m_MARITAL_STATUS_MARRIED = ("1"); else
m_MARITAL_STATUS_MARRIED = ("0");
      if(stmp[0] == '3') m_MARITAL_STATUS_DIVORCED = ("1"); else
m_MARITAL_STATUS_DIVORCED = ("0");
      if(stmp[0] == '4') m_MARITAL_STATUS_WIDOWED = ("1"); else
m_MARITAL_STATUS_WIDOWED = ("0");
      if(stmp[0] == '5') m_MARITAL_STATUS_LWP = ("1"); else
m_MARITAL_STATUS_LWP = ("0");
      if(stmp[0] == '6') m_MARITAL_STATUS_OTHER = ("1"); else
m_MARITAL_STATUS_OTHER = ("0");
      m_ACOG_SYNPTOMS = get_fld(pRec,117,2);
      stnp = get_fld(pRec,119,2);
      if (stmp [0] == '0') m_VAGINAL_BLEEDING = ("0") ; else
m_VAGINAL_BLEEDING = ("1");
      if (stmp[0] == '1') m_VAGINAL_BLEEDING_TRACE = ("1"); else
m_VAGINAL_BLEEDING_TRACE = ("0")
      if (stmp[0] == '2') m_VAGINAL_BLEEDING_MEDIUM = ("1"); else
m_VAGINAL_BLEEDING_MEDIUM = ("0");
      if (stmp[0] == '3') m_VAGINAL_BLEEDING_GROSS = ("1"); else
m_VAGINAL_BLEEDING_GROSS = ("0")
      if (stmp [0] == 0) m_VAGINAL_BLEEDING = ("0")
      m_PATIENT_COMPLAINT_1 = get_fld(pRec,121,2);
      m_PATIENT_COMPLAINT_2 = get_fld(pRec,123,2);
      m_PATIENT_COMPLAINT_3 = get_fld(pRec,125,2);
      m_PATIENT_COMPLAINT_4 = get_fld(pRec,127,2);
      m_PATIENT_COMPLAINT_5 = get_fld(pRec,129,2);
      m_PATIENT_COMPLAINT_6 = get_fld(pRec,131,2);
      stmp_get_fld(pRec,133,2);
      if(stmp[0] == '1') m_PATIENT_COMPLAINT_1_LT1 = ("1");else
m_PATIENT_COMPLAINT_1_LT 1 = ("0");
      if(stmp[0] == '2') m_PATIENT_COMPLAINT_1_1_3 ("1"); else
m_PATIENT_COMPLAINT_1_1_3 = ("0");
      if(stmp[0] == '3') m_PATIENT_COMPLAINT_1_4_6 = ("1"); else
m_PATIENT_COMPLAINT_1_4_6 = ("0");
      if(stmp[0] == '4') m_PATIENT_COMPLAINT_1_7_9 = ("1"); else
m_PATIENT_COMPLAINT_1_7_9 ("0") ;
      if(stmp(0] == '5') m_PATIENT_COMPLAINT_1_10_12 = ("1"); else
m_PATIENT_COMPLAINT_1_10_12 = ("0");
      if(stmp[0] == '6') m_PATIENT_COMPLAINT_1_GT12 ("1"); else
m_PATIENT_COMPLAINT_1_G T12 = ("0");
      m_EGA_BY_SONO = get_fld(pRec,135,8);
      m_EGA_BY_LMP = get_fld(pRec,143,8);
      m_EGA_AT_SAMPLING = get_fld (pRec, 151, 8)
      m_GRAVITY = get_fld(pRec,159,2);
```

```
      m_PARITY = get_fld(pRec,161,2);
      m_ABORTIONS = get_fld(pRec,163,2);
      stmp = get_fld(pRec,165,2);
      if(stmp[0] == '1') m_2_COMP_1 = ("1"); else m_2_COMP_1 = ("0");
      if(stmp[0] == '2') m_2_COMP_2 = ("1"); else m_2_COMP_2 = ("0");
      if(stmp[0] == '3') m_2_COMP_3 = ("1"); else m_2_COMP_3 = ("0");
      m_0_COMP = get_fld(pRec,167,2);
      m_1_COMP = get_fld(pRec,169,2);
      m_2_COMP = get_fld(pRec,171,2);
      m_3_COMP = get_fld(pRec,173,2);
      m_4_COMP = get_fld(pRec,175,2);
      m_5_COMP = get_fld(pRec,177,2);
      m_6_COMP = get_fld(pRec,179,2);
      stmp = get_fld(pRec,181,2);
      if (stmp[0] == [0] ,_MULTIPLE_GESTATION ("0"); else
m_MULTIPLE_GESTATION = ("1");
      if(stmp[0] == '1')("1"); m_MULTIPLE_GESTATION_TWINS - ("1"); else
m_MULTIPLE_GESTATION_TWINS = ("0");
      if(stmp[0] == '2') m_MULTIPLE_GESTATION_TRIPLETS = ("1"); else
m_MULTIPLE_GESTATION_TRIPLETS = ("0"),
      if(stmp[0] == '3') m_MULTIPLE_GESTATION_QUADS = ("1"); else
m_MULTIPLE_GESTATION_QUADS = ("0");
      if(stmp[0] == 0) m_MULTIPLE_GESTATION = ("0");
      m_UTCERV_ABNORMALITY = get_fld(pRec,183,2);
      m_CERVICAL_CERCLAGE = get-fld(pRec,185,2);
      m_GESTATIONAL _DIABETES = get_fld(pRec,187,2);
      m_HYPERTENSIVE_DISORDERS = get_fld(pRec,189,2);
      stmp = get_fld(pRec,191,2);
      if(stmp[0] == '0') m_DILITATION_UNKNOWN = ("1"); else
m_DILITATION_UNKNOWN = ("0")
      if(stmp[0] == '1) m_DILITATION_LT1 = ("1"); else m_DILITATION LT1 =
("0");
      if(stmp[0] == '2') m_DILITATION_1 = ("1"); else m_DILITATION_1 =
("0");
      if(stmp[0] == '3') m_DILITATION_1_2 = ("1"); else m_DILITATION_1_2 =
("0");
      if(stmp[0] == '4') m_DILITATION_2 = ("1"); else m_DILITATION_2 =
("0");
      if(stmp[0] == '5') m_DILITATION_2_3 = ("1"); else m_DILITATION_2_3 =
("0");
      if(stmp[0] == '6') m_DILITATION_3 = ("1"); else m_DILITATION_3 =
("0");
      if(stmp([0] == '7') m_DILITATION_GT3 = ("1"); else m_DILITATION_GT3 =
("0");
      stmp = get_fld(pRec,193,2);
      if (stmp [0] == '1') m_CERVICAL_CONSISTANCY_FIRM = ("1") ; else
m_CERVICAL_CONSISTANCY_FIRM = ("0");
      if (stmp[0] == '2') m_CERVICAL_CONSISTANCY_MOD = ("1"); else
m_CERVICAL_CONSISTANCY_MOD = ("0");
      if (stmp[0] == '3') m_CERVICAL_CONSISTANCY_SOFT = ("1") else
m_CERVICAL_CONSISTANCY_SOFT = ("0");
      m_ANTIBIOTICS = get_fld(pRec,195,2);
      m_CORTICOSTEROIDS = get_fld(pRec,197,2);
      m_TOYOLYTICS = get_fld(pRec,199,2);
      m_INSULIN = get_fld(pRec,201,2);
      m_ANTIHYPERTENSIVES = get_fld(pRec,203,2);
      m_MEDICATIONS_NONE = get_fld(pRec,205,2);
      m_MEDICATIONS_UNKNOWN = -get_fld(pRec,207,2);
      m_FFN_RESULT = get_fld(pRec,209,2);
      m_NetPos1 = (double)atof(get_fld(pRec, 211, 20));
      m_NetNeg1 = (double)atof(get_fld(pRec, 231, 20));
```

```
        m_NetPos2 = (double)atof(get_fld(pRec, 251, 20));
        m_NetNeg2 = (double)atof(get_fld(pRec, 271, 20));
        m_NetPos3 = (double)atof(get_fld(pRec, 291, 20));
        m_NetNeg3 = (double)atof(get-fld(pRec, 311, 20));

        UpdateAllViews(NULL);
}

char* CPTDinpDoc: :get_fld (char* pRec, int ofs, int len)
{
int i;

        for( i = 0; i < len; i++) {
                fld[i] = pRec[ofs-1+i];
        }
        fld[len] = 0;
        for( i = len-1; i >= 0; i--) {
                if(fld[i] == ' ') {
                        fld[i] = 0;
                } else {
                        break;
                }
        }
        return fld;

}

CTime& CPTDinpDoc::get_time_fld(char* pRec, int iofs, int len)
{
int i;
int m,d,y;
int ofs;

        for( i = 0; i < len; i++) {
                fld[i] = pRec(iofs-1+i];
        }
        for( i = len-1; i > 0; i--) {
                if(fld[i] ==
                        fld[i] = 0;
                } else {
                        break;
                }
        }

        strcpy(tstr,fld);
        m = d = y = 0;
        ofs = 0;
        while(tstr[ofs] == ' ' ) ofs++; // skip spaces;
        m = atoi(&tstr[ofs]);
        while(tstr[ofs] >- '0' && tstr[ofs] <= '9') ofs++; // skip number
        while(tstr[ofs] == '/' || tstr[ofs] == '-') ofs++; // skip delimiter
        d = atoi(&tstr[ofs]);
        if (d == 0) d = 1;
        while(tstr[ofs] >= '0' && tstr[ofs] <= '9') ofs++; // skip number
        while(tstr[ofs] == '/' || tstr[ofs] == '-') ofs++; // skip delimiter
        y = atoi(&tstr[ofs]);
        if(y<100) y += 1900;

        CTime t(y,m,d,0,0,0);
        tim = t;
        return(tim);
```

```
}

void CPTDinpDoc::put_rec(char* pRec)
{
FILE *fp;
CString stmp;

      put_fld(pRec, m_LAB_ID ,1,12);
      put_fld(pRec, m_NAME_L ,13,24);
      put_fld(pRec, m_NAME_F ,37,24);
      put_fld(pRec, m_NAME_MI ,61,2);
      put_fld(pRec, m_DATE_OF_DATA_ENTRY ,63,10);            //time
      put_dbl_fld(pRec, m_PATIENT_AGE ,73,20);
      put_fld(pRec, m_DATE_OF_BIRTH ,93,10);

      //Stmp = " ";
      //if( m_ETHNIC_ORIGIN_WHITE == "1" ) stmp = "1";
      //if( m_ETHNIC_ORIGIN_BLACK == "1" ) stmp = "2";
      //if( m_ETHNIC_ORIGIN_ASIAN == "1" ) stmp = "3";
      //if( m_ETHNIC_ORIGIN_HISPANIC == "1" ) stmp = "4";
      //if( m_ETHNIC_ORIGIN_NATIVE_AMERICAN == ) stmp = "5",
      //if( m_ETHNIC_ORIGIN_OTHER == "1" ) stmp = "6";
      //put_fld(pRec, stmp,103,2);
      put_fld(pRec, m_ETHNIC_ORIGIN_WHITE ,103,2);
      put_fld(pRec, m_ETHNIC_ORIGIN_BLACK ,105,2);
      put_fld(pRec, m_ETHNIC_ORIGIN_ASIAN ,107,2);
      put_fld(pRec, m_ETHNIC_ORIGIN_HISPANIC ,109,2)
      put_fld(pRec, m_ETHNIC_ORIGIN_NATIVE_AMERICAN ,111, 2)
      put_fld(pRec, m_ETHNIC_ORIGIN_OTHER ,113,2);

      stmp = " ";
      if( m_MARITAL_STATUS_SINGLE == "1" ) stmp + "1";
      if( m_MARITAL_STATUS_MARRIED == "1" ) stmp "2";
      if( m_MARITAL_STATUS_DIVORCED == "1" ) stmp = "3";
      if( m_MARITAL_STATUS_WIDOWED == "1" ) stmp "4";
      if ( m_MARITAL_STATUS_LWP == "1" ) stmp = "5";
      if( m_MARITAL_STATUS_OTHER == "1" ) stmp = "6";
      put_fld(pRec, stmp,115,2);

      put_fld(pRec, m_ACOG_SYNPTOMS ,117,2);

      stmp = " ";
      if( m_VAGINAL_BLEEDING == "O" ) stmp = "0";
      if( m_VAGINAL_BLEEDING_TRACE == "1" ) stmp = "1";
      if( m_VAGINAL_BLEEDING_MEDIUM == "1" ) stmp = "2";
      if( m_VAGINAL_BLEEDING_GROSS == "1" ) stmp = "3";
      put_fld(pRec, stmp,119,2);

      put_fld(pRec, m_PATIENT_COMPLAINT_1 ,121,2);
      put_fld(pRec, m_PATIENT_COMPLAINT_2 ,123,2);
      put_fld(pRec, m_PATIENT_COMPLAINT_3 ,125,2);
      put_fld(pRec, m_PATIENT_COMPLAINT_4 ,127,2);
      put_fld(pRec, m_PATIENT_COMPLAINT_5 ,129,2);
      put_fld(pRec, m_PATIENT_COMPLAINT_6 ,131,2);

      stmp = " ";
      if( m_PATIENT_COMPLAINT_1_LT1 == "1" ) stmp = "1";
      if( m_PATIENT_COMPLAINT_1_1_3 == "1" ) stmp =   "2";
      if( m_PATIENT_COMPLAINT_1_4_6 == "1" ) stmp = "3";
```

```
if( m_PATIENT_COMPLAINT_1_7_9 == "1" ) stmp = "4";
if( m_PATIENT_COMPLAINT_1_10_12 == "1" ) stmp = "5";
if( m_PATIENT_COMPLAINT_1_GT12 == "1" ) stmp = "6";
put_fld(pRec, stmp,133,2);

put_fld(pRec, m_EGA_BY_SONO ,135,8);
put_fld(pRec, m_EGA_BY_LMP ,143,8);
put_fld(pRec, m_EGA_AT_SAMPLING ,151,8);
put_fld(pRec, m_GRAVITY ,159,2);
put_fld(pRec, m_PARITY, 161,2);
put_fld(pRec, m_ABORTIONS, 163,2);

stmp = " ";
if( m_2_COMP_1 == "1" ) stmp = "1";
if( m_1_COMP_2 == "1") stmp = "2";
if( m_2_COMP_3 == "1" ) stmp = "3";
put_fld(pRec, stmp,165,2);

put_fld(pRec, m_0_COMP ,167,2);
put_fld(pRec, m_1_COMP ,169,2);
put_fld(pRec, m_2_COMP ,171,2);
put_fld(pRec, m_3_COMP ,173,2);
put_fld(pRec, m_4_COMP ,175,2);
put_fld(pRec, m_5_COMP ,177,2);
put_fld(pRec, m_6_COMP ,179,2);

stmp = " ";
if( m_MULTIPLE_GESTATION == "0" ) stmp = "0";
if( m_MULTIPLE_GESTATION_TWINS == "1" ) stmp = "1";
if( m_MULTIPLE_GESTATION_TRIPLETS == "1" ) stmp = "2";
if( m_MULTIPLE_GESTATION_QUADS == "1" ) stmp = "3";
put_fld(pRec, stmp,181,2);

put_fld(pRec, m_UTCERV_ABNORMALITY ,183,2);
put_fld(pRec, m_CERVICAL_CERCLAGE ,185,2);
put_fld(pRec, m_GESTATIONAL_DIABETES ,187,2);
put_fld(pRec, m_HYPERTENSIVE_DISORDERS ,189,2);

stmp = " ";
if( m_DILITATION_UNKNOWN == "1" ) stmp = "0";
if( m_DILITATION_LT1 == "1" ) stmp = "1";
if( m_DILITATION_1 == "1" ) stmp = "2";
if( m_DILITATION_1_2 == "1") stmp"3";
if( m_DILITATION_2 == "1" ) stmp = "4";
if( m_DILITATION_2_3 == "1" ) stmp = "5";
if(m_DILITATION_3 == "1" ) stmp = "6";
if( m_DILITATION_GT3 == "1" ) stmp = "7";
put-fld(pRec, stmp,191,2);

stnp = " ";
if( m_CERVICAL_CONSISTANCY_FIRM == "1" ) stmp = "1";
if( m_CERVICAL_CONSISTANCY_MOD == "1" ) stmp = "2";
if ( m_CERVICAL_CONSISTANCY_SOFT == "1" ) stmp = "3";
put_fld(pRec, stmp,193,2);

put_fld(pRec, m_ANTIBIOTICS ,195,2);
put_fld(pRec, m_CORTICOSTEROIDS ,197,2);
put_fld(pRec, m_TOYOLYTICS ,199,2);
put_fld(pRec, m_INSULIN ,201,2);
put_fld(pRec, m_ANTIHYPERTENSIVES ,203,2);
put_fld(pRec, m_MEDICATIONS_NONE ,205,2);
```

```
        put_fld(pRec, m_MEDICATIONS_UNKNOWN ,207,2);
        put_fld(pRec, m_FFN_RESULT ,209,2);
        put_net_fld(pRec, m_NetPos1,211, 20);
        put_net_fld(pRec, m_NetNeg1,231, 20);
        put_net_fld(pRec, m_NetPos2,251, 20);
        put_net_fld(pRec, m_NetNeg2,271, 20);
        put_net_fld(pRec, m_NetPos3,291, 20);
        put_net_fld(pRec, m_NetNeg3,311, 20);

        fp = fopen(PathName,"r+b");
        if(fp==NULL) {
              fp = fopen(PathName,"wb");
              if(fp!=NULL) {
                    fwrite(Rec,sizeof (char), (REC_LENGTH+2L),fp);
                    fflush(fp);
                    fclose(fp);
              }
        } else {
              f seek (fp, (long) ((REC_LENGTH+2L)*CurRecord),SEEK_SET);
              fwrite (pRec, sizeof (char), (REC_LENGTH+2L), fp);
              fflush(fp);
              fclose(fp);
        }

        UpdateAllViews(NULL);

}

void CPTDinpDoc::put_fld(char* pRec, CString& dat, int ofs, int len)
{
int i;
int fill;

        strcpy(fld,dat);
        fill = 0;

        for( i = 0; i < len; i++) {
              if (fld[i] == 0) fill = 1;
              if(fill==0) {
                    pRec(ofs-1+i] = fld[i];
              } else {
                    pRec[ofs-1+i] = (char)' ';
              }
        }

}

void CPTDinpDoc::put_dbl_fld (char* pRec, double dat, int ofs, int len)
{
int i;

        sprintf(fld,"%20.4lf",dat);
        for( i = 0; i < len; i++) {
              pRec[ofs-1+i] = fld[i];
        }

}

void CPTDinpDoc::put_net_fld (char* pRec, double dat, int ofs, int len)
{
int i;
```

```
        sprintf(fld,"%20.161f",dat);
        for( i = 0; i < len; i++) {
              pRec[ofs-1+i] = fld[i];
        }

}

void CPTDinpDoc: :put-time-fld (char* pRec, CTime& dat, int ofs, int len)

int i;
char *pfld;

        pfld = time2str(dat);
        strcat(pfld,"     ");
        for( i = 0; i < len; i++) {
              pRec[ofs-1+i] = pfld[i];
        }

}

void CPTDinpDoc::OnBldNetFile()
{
FILE *fp;

        // Get the File Name
        CFileDialog Dlg (FALSE, "ndb", NULL, OFN_OVERWRITEPROMPT ,
              "NDB iles (*.nbd)||*.ndb||");
        Dlg.m_ofn.lpstrTitle = "Open fixed length Network DataBase file";
        if( Dlg.DoModal() == IDOK ) {

              strcpy(NetName,Dlg.GetPathName());

              // open the new file
              fp = fopen(NetName,"wb");

              if(fp == NULL) {
                    AfxMessageBox ("Could not open the neural network output
file!");

              } else {

                    // build the record
                    CurRecord = 0;
                    HCURSOR hcurSave;
                    hcurSave = SetCursor (LoadCursor (NULL, IDC_WAIT));

                    while( CurRecord < NumRecords ) {

                          // read the PTD record
                          get_rec(Rec);

                          // run the networks
                          RunNets(CurRecord);

                          // build the output record
                          put_fld(NetRec, m_LAB_ID, 1, 12);
                          put_net_fld(NetRec, m_NetPos1, 13, 20);
                          put_net_fld(NetRec, m_NetNeg1, 33, 20);
                          put_net_fld(NetRec, m_NetPos2, 53, 20);
                          put_net_fld(NetRec, m_NetNeg2, 73, 20);
                          put_net_fld(NetRec, m_NetPos3, 93, 20);
```

```
                        put_net_fld(NetRec, m_NetNeg3, 113, 20);
                        NetRec[132] = (char)0x0d;
                        NetRec[133] = (char)0x0a;

                        // write the output record
                        fwrite (NetRec, sizeof (char) 134, fp)

                        // increment to the next PTD record
                        CurRecord += 1;
                    }

                    close the new file
                    fclose(fp);
                    SetCursor(hcurSave);

                }

        }

}

void CPTDinpDoc::InitializeRec()
{
        // add one-time construction code here
        for(int i = 0; i < REC_LENGTH; i++) Rec[i] = (char)' ';
        Rec[REC_LENGTH] = (char)0x0d;
        Rec[REC_LENGTH + 1L] = (char)0x0a;

        //CTime Dtime(1900,1,1,0,0,0);
        char* Dtime = "mm/dd/yy";

        m_LAB_ID = ("");
        m_NAME_L = ("");
        m_NAME_F = ("");
        m_NAME_MI = ("");
        m_DATE_OF_DATA_ENTRY = time2str(CTime::GetCurrentTime());
        m_PATIENT_AGE = 0.0;
        m_DATE_OF_BIRTH = Dtime;
        m_ETHNIC_ORIGIN_WHITE = ("");
        m_ETHNIC_ORIGIN_BLACK = ("");
        m_ETHNIC_ORIGIN_ASIAN = ("");
        m_ETHNIC_ORIGIN_HISPANIC = ("");
        m_ETHNIC_ORIGIN_NATIVE_AMERICAN = ("");
        m_ETHNIC_ORIGIN_OTHER = ("");
        m_MARITAL_STATUS_SINGLE = ("");
        m_MARITAL_STATUS_MARRIED = ("");
        m_MARITAL_STATUS_DIVORCED = ("");
        m_MARITAL_STATUS_WIDOWED = ("");
        m_MARITAL_STATUS_LWP = ("");
        m_MARITAL_STATUS_OTHER = ("");
        m_ACOG_SYNPTOMS = ("");
        m_PATIENT_COMPLAINT_1 = ("");
        m_PATIENT_COMPLAINT_1_1_3 = ("");
        m_PATIENT_COMPLAINT_1_10_12 = ("");
        m_PATIENT_COMPLAINT_1_4_6 = ("");
        m_PATIENT_COMPLAINT_1_7_9 = ("");
        m_PATIENT_COMPLAINT_1_GT12 = ("");
        m_PATIENT_COMPLAINT_1_LT1 = ("");
        m_VAGINAL_BLEEDING = ("");
        m_VAGINAL_BLEEDING_TRACE = ("");
        m_VAGINAL_BLEEDING_MEDIUM = ("");
```

```
        m_VAGINAL_BLEEDING_GROSS = ("");
        m_PATIENT_COMPLAINT_6 = ("");
        m_PATIENT_COMPLAINT_3 = ("");
        m_PATIENT_COMPLAINT_2 = ("");
        m_PATIENT_COMPLAINT_5 = ("");
        m_PATIENT_COMPLAINT_4 = ("");
        m_EGA_BY_SONO = "ww.d";
        m_EGA_BY_LMP = "ww.d";
        m_EGA_AT_SAMPLING = "ww.d";
        m_0_COMP = ("");
        m_1_COMP = ("");
        m_2_COMP = ("");
        m_3_COMP = ("");
        m_4_COMP = ("");
        m_5_COMP = ("");
        m_6_COMP = ("");
        m_2_COMP_1 = ("");
        m_2_COMP_2 = ("");
        m_2_COMP_3 = ("");
        m_GRAVITY = ("");
        m_PARITY = ("");
        m_ABORTIONS = ("");
        m_MULTIPLE_GESTATION = ("");
        m_MULTIPLE_GESTATION_TWINS = ("");
        m_MULTIPLE_GESTATION_TRIPLETS = ("");
        m_MULTIPLE_GESTATION_QUADS = ("");
        m_UTCERV_ABNORMALITY = ("");
        m_CERVICAL_CERCLAGE = ("");
        m_GESTATIONAL_DIABETES = ("");
        m_HYPERTENSIVE_DISORDERS = ("");
        m_DILITATION_LT1 = ("");
        m_DILITATION_1 = ("");
        m_DILITATION_1_2 = ("");
        m_DILITATION_2 = ("");
        m_DILITATION_2_3 = ("");
        m_DILITATION_3 = ("");
        m_DILITATION_GT3 = ("");
        m_DILITATION_UNKNOWN = ("");
        m_CERVICAL_CONSISTANCY_FIRM = ("");
        m_CERVICAL_CONSISTANCY_MOD = ("");
        m_CERVICAL_CONSISTANCY_SOFT = ("");
        m_ANTIBIOTICS = ("");
        m_CORTICOSTEROIDS = ("");
        m_TOYOLYTICS = ("");
        m_INSULIN = ("");
        m_ANTIHYPERTENSIVES = ("");
        m_MEDICATIONS_NONE = ("");
        m_MEDICATIONS_UNKNOWN = ("");
        m_FFN_RESULT = ("");

}

void CPTDinpDoc::LoadNets()
{

        // load eight networks for each consensus 1-8
        if(LoadNet(1,"ega6_0") != 1) {
                AfxMessageBox("Could not load ega6_0");
        }
        if(LoadNet(2,"ega6_1") != 2) {
                AfxMessageBox("Could not load ega6_1");
```

```
}
if(LoadNet(3,"ega6_2") != 3) {
      AfxMessageBox("Could not load ega6_2");
}
if(LoadNet(4,"ega6_3") != 4) {
      AfxMessageBox("Could not load ega6_3");
}
if(LoadNet(5,"ega6_4") != 5) {
      AfxMessageBox("Could not load ega6_4");
}
if(LoadNet(6,"ega6_5") != 6) {
      AfxMessageBox("Could not load ega6_5");
}
if(LoadNet(7,"ega6_6") != 7) {
      AfxMessageBox("Could not load ega6_6");
}
if(LoadNet(8,"ega6_7") != 8) {
      AfxMessageBox("Could not load ega6_7");
}

// load eight networks for each consensus 9-16

if(LoadNet(9,"egad7f0") != 9) {
      AfxMessageBox("Could not load egad7f0");
}
if(LoadNet(10,"egad7f1") != 10) {
      AfxMessageBox("Could not load egad7f1");
}
if(LoadNet(11,"egad7f2") != 11) {
      AfxMessageBox("Could not load egad7f2");
}
if(LoadNet(12,"egad7f3") != 12) {
      AfxMessageBox("Could not load egad7f3");
}
if(LoadNet(13,"egad7f4") !- 13) {
      AfxMessageBox("Could not load egad7f4");
}
if(LoadNet(14,"egad7f5") != 14) {
      AfxMessageBox("Could not load egad7f5");
}
if(LoadNet(15,"egad7f6") != 15) {
      AfxMessageBox("Could not load egad7f6");
}
if(LoadNet(16,"egad7f7") != 16) {
      AfxMessageBox("Could not load egad7f7");
}

// load eight networks for each consensus 17-24

if(LoadNet(17,"egad14f0") != 17) {
      AfxMessageBox("Could not load egad14f");
}
if(LoadNet(18,"egad14f1") ! =18) {
      AfxMessageBox("Could not load egad14f1");
}
if(LoadNet(19,"egad14f2") != 19) {
      AfxMessageBox("Could not load egad14f2");
}
if(LoadNet(20,"egad14f3") != 20) {
      AfxMessageBox("Could not load egad14f3");
}
```

```
        if(LoadNet(21,"egad14f4") != 21) {
              AfxMessageBox("Could not load egad14f4");
        }
        if(LoadNet(22,"egad14f5") != 22) {
              AfxMessageBox("Could not load egad14f5");
        }
        if(LoadNet(23,"egad14f6") != 23) {
              AfxMessageBox("Could not load egad14f6");
        }
        if(LoadNet(24,"egad14f7") != 24) {
              AfxMessageBox("Could not load egad14f7");
        }

}

void CPTDinpDoc::FreeNets()
{
        for(int i = 1; i <= 24; i++) FreeNet(i);
}

void CPTDinpDoc::RunNets(long n)
{
double Val, Vall, frac;

        Run first ega6 nets
        m_NetPos1 = 0.0;
        m_NetNeg1 = 0.0;
        for(inti = 1; i <=8; i++) {
              // build inputs from record
              Val = ((m_ETHNIC_ORIGIN_WHITE == "1")?1.0:0.0);
              PutInput(i,1,&Val);
              Val = ((m_MARITAL_STATUS_LWP == "1")?1.0:0.0);
              PutInput(1,2,&Val);
              Val = (double)atof(m_EGA_BY_SONO);
              frac = Val - floor(Val);
              Val = floor(Val) + (frac / 0.7);
              PutInput(i,3,&Val);
              //Val = (double)atof(m_EGA_BY_BEST);
              Val = (double)atof(m_EGA_BY_LMP);
              frac = Val - floor(Val);
              Val = floor(Val) + (frac / 0.7);
              Vall = (double)atof(m_EGA_BY_SONO);
              frac = Vall - floor(Vall);
              Vall = floor.(Vall) + (frac / 0.7);
              if(Vall <= 13.0) {
                    Val = Vall;
              } else {
                    if(fabs(Val - Vall) > 2.0) {
                    }  else {
                          Val = Vall;
                    }
              }
              PutInput(i,4,&Val);
              Val = (double)atof(m_EGA_AT_SAMPLING);
              frac = Val - floor(val);
              Val = floor(Val) + (frac / 0.7);
              PutInput(i,5,&Val);
              Val = 0.0; // CD INTERP
              if( m_DILITATION_LT1 == "1" ) Val = 0.0;
              if( m_DILITATION_1 == "1"  ) Val = 1.0;
              if( m_DILITATION_1_2 == "1" ) Val = 1.5;
```

```
        if( m_DILITATION_2 == "1" ) Val = 2.0;
        if( m_DILITATION_2_3 == "1" ) Val = 2.0;
        if( m_DILITATION_3 == "1" ) Val = 3.0;
        if( m_DILITATION_GT3 == "1" ) Val = 3.0;
        PutInput(i,6,&Val);
        Val = 0.0; // Parity-PreTerm
        if( m_2_COMP_1 == "1" ) Val = 1.0;
        if( m_2_COMP_2 == "1" ) Val = 2.0;
        if( m_2_COMP_3 == "1" ) Val = 3.0;
        PutInput(i,7,&Val);
        Val = ((m_VAGINAL_BLEEDING == "1")?1.0:0.0);
        PutInput(i,8,&Val);
        Val = 1.823197; // CERVICAL CONSISTANCY
        if( m_CERVICAL_CONSISTANCY_FIRM == "1" ) Val = 1. 0;
        if( m_CERVICAL_CONSISTANCY_MOD == "1" ) Val = 2.0;
        if( m_CERVICAL_CONSISTANCY_SOFT == "1" ) Val = 3.0;
        PutInput(i,9,&Val);
        Val = ((m_1_COMP == "1")?1.0:0.0);
        PutInput(i,-10,&Val);
        Val = ((m_FFN_RESULT == "1")?1.0:0.0);
        PutInput(i,11-,&Val);

        // iterate network
        IterateNet(i);

        // build consensus result
        m_NetPosl += GetState(i,3,1) / 8.0;
        m_NetNegl += GetState(i,3,2) / 8.0;
}

m_NetVall = 25. 0 * (m_NetPosl - m_NetNeg1)

// Run first egad7f nets
m_NetPos2 = 0.0;
m_NetNeg2 = 0.0;
for (i = 9; <=16; i++)
        // build inputs from record
        Val = ((m_ETHNIC_ORIGIN_WHITE == "1")?1-0:0.0);
        PutInput(i,1,&Val);
        Val = ((m_PATIENT_COMPLAINT_1 == "1")?1.0:0.0);
        PutInput(i,2,&Val);
        Val = (double)atof(m_ABORTIONS);
        PutInput(i,3,&Val);
        Val = ((m_VAGINAL_BLEEDING == "1")?1.0:0.0);
        PutInput(i,4,&Val);
        Val = 0.0; //UC_INTERP
        if( m_PATIENT_CORPLAINT_1_LT1 == "1" ) Val = 1.0;
        if( m_PATIENT_COMPLAINT_1_1_3 == "1" ) Val = 2.0;
        if( m_PATIENT_COMPLAINT_1_4_6 == "1" ) Val = 3.0;
        if( m_PATIENT_COMPLAINT_1_7_9 == "1" ) Val = 4.0;
        if( m_PATIENT_COMPLAINT_1_10_12 == "1" ) Val = 5.0;
        if( m_PATIENT_COMPLAINT_1_GT12 == "1" ) Val = 6.0;
        PutInput(i,5,&Val);
        Val = ((m_0_COMP == "1")?1.0:0.0);
        PutInput (i,6,&Val);
        Val = ((m_FFN_RESULT == "1")?1.0:0.0);
        PutInput(i,7,&Val);

        // iterate network
        IterateNet(i);
```

```
            // build consensus result
            m_NetPos2 += GetState(i,3,1) / 8.0;
            m_NetNeg2 += GetState(i,3,2) / 8.0;
      }

      m_NetVal12 = 25.0 * (m_NetPos2-m_NetNeg2);

      // Run first egad14f nets
      m_NetPos3 = 0.0;
      m_NetNeg3 = 0.0;
      for(i = 17; i <=24; i++) {
            // build inputs from record
            Val = ((m_ETHNIC_ORIGIN_NATIVE-AMERICAN    == "1")?1.0:0.0);
            PutInput(i,1,&Val);
            Val = ((m_MARITAL_STATUS_LWP == "1")?1.0:0.0);
            PutInput(i,2,&Val);
            Val = ((m_PATIENT_COMPLAINT_1 == "1")?1.0:0.0);
            PutInput(i,3,&Val);
            Val = 0.0;  //CD_INTERP
            if( m_DILITATION_LT1 == "1" ) Val = 0.0;
            if( m_DILITATION_1 == "1" ) Val = 1.0;
            if( m_DILITATION_1_2 == "1" ) Val = 1.5;
            if( m_DILITATION_2 == "1" ) Val = 2.0;
            if( m_DILITATION_2_3 == "1" ) Val = 2.0;
            if( m_DILITATION_3 == "1" ) Val = 3.0;
            if( m_DILITATION_GT3 == "1" ) Val = 3.0;
            PutInput(i,4,&Val);
            Val = 0.0;  //UC INTERP
            if( m_PATIENT_COMPLAINT_1_LT1 == "1" ) Val = 1.0;
            if( m_PATIENT_COMPLAINT_1_1_3 == "1" ) Val = 2.0;
            if( m_PATIENT_COMPLAINT_1_4_6 == "1" ) Val = 3.0,
            if( m_PATIENT_COMPLAINT_1_7_9 == "1" ) Val = 4.0;
            if( m_PATIENT_COMPLAINT_1_10_12 == "1" ) Val = 5.0;
            if( m_PATIENT_COMPLAINT_1_GT12 == "1" ) Val = 6.0;
            PutInput(i,5,&Val);
            Val = ((m_0_COMP == "1")?1.0:0.0);
            PutInput (i, 6,&Val);
            Val = ((m_FFN_RESULT == "1")?1.0:0.0);
            PutInput(i,7,&Val);

            // iterate network
            IterateNet(i);

            // build consensus result
            m_NetPos3 += GetState(i,3,1) / 8.0;
            m_NetNeg3 += GetState(i,3,2) / 8.0;
      }

      m_NetVal13 = 25.0 * (m_NetPos3-m_NetNeg3);

}

char* CPTDinpDoc::time2str( const CTime& tm )
{
      sprintf(tstr,"%d/%d/%d",tm.GetMonth(),tm.GetDay(),
(tm.GetYear()-1900));
      return tstr;
}
CTime& CPTDinpDoc::str2time( CString& str )
{
      int m,d,y;
```

```
        int ofs;

        strcpy(tstr,str);
        m = d = y = 0;
        ofs = 0;
        while(tstr[ofs] == ' ') ofs++; // skip spaces;
        m = atoi(&tstr[ofs]);
        while(tstr[ofs] >= '0' && tstr[ofs] <= '9')     ofs++; // skip number
        while(tstr[ofs] == '/' || tstr[ofs] == '/') ofs++; // skip delimiter
        d = atoi(&tstr[ofs]);
        while(tstr[ofs] >= '0' && tstr[ofs] <= '9') ofs++; // skip number
        while(tstr[ofs] == '/' || tstr[ofs] == '-') ofs++; // skip delimiter
        y = atoi(&tstr[ofs]);
        if(Y<100) y += 1900;

        tim = CTime(y,m,d,0,0,0);
        return(tim);

}

void CPTDinpDoc::OnRecGoto()
{
        CPtdGoto dlg;
        int i;

        // Define and run a dialog to select the search mode and rec number
etc.
        dlg.m_IDStr = IDStr;
        dlg.m_RecNum = CurRecord + 1;
        dlg.m_GotoMode = GotoMode;

        if(dlg.DoModal() == IDOK) {

                GotoMode = dlg.m_GotoMode;
                switch(GotoMode) {
                case 0:
                        // record number
                        CurRecord = dlg.m_RecNum - 1;
                        if (CurRecord < 0) CurRecord = 0;
                        if (CurRecord > NumRecords - 1 ) CurRecord = NumRecords -
1;
                        get_rec(Rec);
                        break;
                case 1:
                        // ID string
                        IDStr = dlg.m_IDStr;
                        for (i = 0; i < NumRecords; i++) {
                                CurRecord = i;
                                get rec(Rec);
                                if ( IDStr == m_LAB_ID ) break;
                        }
                        break;
                default:
                        // Do nothing
                        break;
                }
        }

}

void CPTDinpDoc::OnFileMruFile1()
```

```
{
      GetPrivateProfileString("Recent File List",          //lpszSection
                              "File1",                  //lpszEntry
                              "untitled",               // lpszDefault
                              PathName,                 // lpszReturnBuffer
                              128,                      // cbReturnBuffer
                              "ptdinp.ini");                 // lpszFilename

      get_file();

}
void CPTDinpDoc::OnFileMruFile2()
{
      GetPrivateProfileString ("Recent File List",         //lpszSection
                              "File2",                  //lpszEntry
                              "untitled"                // lpszDefault
                              PathName,                 // lpszReturnBuffer
                              128,                      // cbReturnBuffer
                              "ptdinp.ini");                 // lpszFilename

      get_file();

}

void CPTDinpDoc::OnFileMruFile3()
{
      GetPrivateProfileString ("Recent File List",         //lpszSection
                              "File3",                  //lpszEntry
                              "untitled",               // lpszDefault
                              PathName,                 // lpszReturnBuffer
                              128,                      // cbReturnBuffer
                              "ptdinp.ini");                 // lpszFilename

      get_file();

}

void CPTDinpDoc::OnFileMruFile4()
{
      GetPrivateProfileString ("Recent File List",         //lpszSection
                              "File4",                  //lpszEntry
                              "untitled",               // lpszDefault
                              PathName,                 // lpszReturnBuffer
                              128,                      // cbReturnBuffer
                              "ptdinp.ini");                 // lpszFilename

      get_file();
}

void CPTDinpDoc::OnFileOpen()
{
//FILE *fp;

      // Get the File Name
      CFileDialog Dlg (TRUE, "fdb",NULL,OFN_OVERWRITEPROMPT ,
            "FDB iles (*.fbd) |*.fdb||");
      Dlg.m_ofn.lpstrTitle = "Open Fixed length DataBase file";
      if( Dlg.DoModal() == IDOK ) {

            strcpy(PathName,Dlg.GetPathName());
            AfxGetApp () ->AddToRecentFileList (PathName);
```

```
            get_file();
#ifdef NOT
      CurRecord = 0;
      fp = fopen(PathName,"rb");

      if(fp==NULL) {
            fp = fopen(PathName,"wb");
            if(fp!=NULL) {
                  fwrite(Rec, sizeof (char), (REC_LENGTH+2L),fp);
                  fclose(fp);
            }
            NumRecords = 1;
            CurRecord = 0;
            InitializeRec();
            put_rec(Rec);
            get_rec(Rec);
      } else {
            CurRecord = 0;
            if (fread(Rec,sizeof(char),(REC_LENGTH+2 L),fp) == (REC_LENGTH+
2 L) {
                  get_rec(Rec);
            }
            fseek(fp,0L,SEEK_END);
            NumRecords = ftell(fp) / (REC_LENGTH+2L);
            fclose(fp);
      }
#endif

      }

}

void CPTDinpDoc::get-file()
{
FILE *fp;

      CurRecord = 0;
      fp = fopen(PathName,"rb")

      if(fp==NULL) {
            fp = fopen(PathName,"wb");
            if(fp!=NULL) {
                  fwrite (Rec,sizeof (char),(REC_LENGTH+2L),fp);
                  fclose(fp);
            }
            NumRecords = 1;
            CurRecord = 0;
            InitializeRec();
            put_rec(Rec);
            get_rec(Rec);
      } else {
            CurRecord = 0;
            if(fread(Rec,sizeof(char),(REC_LENGTH+2L),fp)==(REC_LENGTH+2L))
{
                  get_rec(Rec);
            }
            fseek(fp,0L,SEEK_END);
            NumRecords = ftell(fp) / (REC_LENGTH+2L)
            fclose(fp);
      }
```

```
((CPTDinpApp*)AfxGetApp())->SaveMRU();

}



PTDinp.cpp : Defines the class behaviors for the application.
//

#include "stdafx.h"
#include "PTDinp.h"

#include "mainfrm.h"
#include "PTDidoc.h"
#include "PTDivw.h"

#ifdef _DEBUG
#undef THIS_FILE
static char BASED_CODE THIS_FILE[] = __FILE__;
#endif

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// CPTDinpApp

BEGIN_MESSAGE_MAP(CPTDinpApp, CWinApp)
      //{{AFX_MSG_MAP(CPTDinpApp)
      ON_COMMAND (ID_APP_ABOUT, OnAppAbout)
      ON_COMMAND (ID_CLR_SUBFIELDS, OnClrSubfields)
      ON_COMMAND(ID_EDIT_MODE, OnEditMode)
      //}}AFX_MSG_MAP
      // Standard file based document commands
      ON_COMMAND(ID_FILE_NEW, CWinApp::OnFileNew)
      ON_COMMAND(ID_FILE_OPEN, CWinApp::OnFileOpen)
      // Standard print setup command
      ON_COMMAND(ID_FILE_PRINT_SETUP, CWinApp::OnFilePrintSetup)
END_MESSAGE_MAP()

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// CPTDinpApp construction

CPTDinpApp::CPTDinpApp()
{
      // TODO: add construction code here,
      // Place all significant initialization in InitInstance
      m_pDoc = NULL;
      EditMode = FALSE;
      ClearSubfields = FALSE;
}

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// The one and only CPTDinpApp object

CPTDinpApp NEAR theApp;

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// CPTDinpApp initialization
```

```
BOOL CPTDinpApp::InitInstance()
{
      // Standard initialization
      // If you are not using these features and wish to reduce the size
      //  of your final executable, you should remove from the following
      //  the specific initialization routines you do not need.

      SetDialogBkColor();      // Set dialog background color to gray
      LoadStdProfileSettings();     // Load standard INI file options
(including MRU)

      // Register the application's document templates. Document templates
      //  serve as the connection between documents, frame windows and
views.

      CSingleDocTemplate* pDocTemplate;
      pDocTemplate = new CSingleDocTemplate(
            IDR_MAINFRAME,
            RUNTIME_CLASS(CPTDinpDoc),
            RUNTIME_CLASS(CMainFrame),     // main SDI frame window
            RUNTIME_CLASS(CPTDinpView));
      AddDocTemplate(pDocTemplate);

      // create a new (empty) document
      OnFileNew();

      if (m_lpCmdLine[0] != '\0')
      {
            // TODO: add command line processing here
      }

      ClearSubfields = TRUE;
      // check the menu item
      CMenu* pMenu = Af xGetApp() ->m_pMainWnd->GetMenu()
      pMenu->CheckMenuItem.(ID_CLR_SUB FIELDS,MF_CHECKED)

      return TRUE;
}

/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
// CAboutDlg dialog used for App About

class CAboutDlg : public CDialog
{
public:
      CaboutDlg();

// Dialog Data
      //[(AFX_DATA(CAboutDlg)
      enum { IDD = IDD_ABOUTBOX }
      //}}AFX_DATA

// Implementation
protected:
      virtual void DoDataExchange(CDataExchange* pDX); //DDX/DDV support
      //{{AFX_MSG(CAboutDlg)
            // No message handlers
      //}}AFX_MSG
      DECLARE_MESSAGE_MAP()
};
```

```
CAboutDlg::CaboutDlg() : CDialog(CAboutDlg::IDD)
{
      //{{AFX_DATA_INIT(CAboutDlg)
      //}}AFX_DATA_INIT
}

void CAboutDlg::DoDataExchange(CDataExchange* pDX)
{
      CDialog::DoDataExchange(pDX);
      //{{AFX_DATA_MAP(CAboutDlg)
      //{{AFX_DATA_MAP
}

BEGIN_MESSAGE_MAP(CAboutDlg, CDialog)
      //{{AFX_MSG_MAP(CAboutDlg)
            // No message handlers
      //}}AFX_MSG_MAP
END_MESSAGE_MAP()

// App command to run the dialog
void CPTDinpApp::OnAppAbout()
{
      CAboutDlg aboutDlg;

      aboutDlg.DoModal();
}
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//CPTDinpApp  commands


void CPTDinpApp::OnClrSubfields ( )
{
      if(ClearSubfields) = FALSE;
            // uncheck the menu item
            CMenu* pMenu = AfxGetApp ( )>m_pMainWnd->GetMenu ( );
            pMenu->CheckMenuItem (ID_CLR_SUBFIELDS, MF_UNCHECKED);

      }  else  {

            ClearSubfields = TRUE;
            // check the menu item
            CMenu* pMenu = Af xGetApp ( ) ->m_pMainWnd->GetMenu ( );
            pMenu->CheckMenuItem(ID_CLR_SUBFIELDS,MF_CHECKED);

      }

}
void CPTDinpApp::OnEditMode ( )

{
      if (Edit Mode)  {

            EditMode = FALSE;
            // uncheck the menu item
            CMenu* pMenu = AfxGetAppo ( )>m_pMainWnd->GetMenu ( );
            pMenu->CheckMenuItem(ID_EDIT_MODE,MF_UNCHECKED);

}  else  {

            EditMode = TRUE;
```

```
            // check the menu item
            CMenu* pMenu = AfxGetApp ( )->m_pMainWnd->GetMenu ( );
            pMenu->CheckMenuitem(ID_EDIT_MODE,MF_CHECKED);

      }

}

void CPTDinpApp::SaveMRU ( )
{
      SaveStdProfileSettings ( );
}

;  endoinp.def   :  Declares the module parameters for the application.

NAME         ENDOINP
DESCRIPTION 'IENDOINP Windows Application'
EXETYPE           WINDOWS

CODE              PRELOAD MOVEABLE DISCARDABLE
DATA         PRELOAD MOVEABLE MULTIPLE

HEAPSIZE          1024   ;      initial heap size
; Stack size is passed as argument to linker's  /STACK option

//  PTDinp.h   :  main header file for the PTDINP application
//

#ifndef__AFXWIN__H__
      #error include  'stdafx.h' before including this file for PCH
#endif
#include "resource.h"    //  main symbols
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//  CPTDinpApp:
//  See PTDinp.cpp for the implementation of this class
//
#include  "PTDidoc.h"

class CPTDinpApp   :  public CWinApp
{
public:
      CPTDinpApp( );

      CPTDinpDoc  *m_pDoc;

      int NextDlgPage;
      int LastDlgPage;
      BOOL  EditMode;
      BOOL  ClearSubfields;

      CPTDinpDoc  *GetDoco ( )  {
            return m_pDoc;
      }

      void SaveMRU(  void  );

//  Overrides
     virtual BOOL InitInstance ( );

//   Implementation
```

```
      //{{AFX_MSG(CPTDinpApp)
      afx_msg void OnAppAbout ( );
      afx_msg void OnClrSubfields ( );
      afx_msg void OnEditMode ( );
      //ITAFX_MSG
      DECLARE_MESSAGE_MAP( )
};
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////

//  PTDivw.cpp  :  implementation of the CPTDinpView class

#include "stdafx.h"
#include "PTDinp.h"

#include "PTDidoc.h"
#include "PTDivw.h"

#include "PTDdlgl.h"

#ifdef            _DEBUG
#undef      THIS_FILE
static char BASED_CODE THIS_FILE[ ] = __FILE__;
#endif

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//  CPTDinpView

IMPLEMENT_DYNCREATE(CPTDinpView,   Cview)

BEGIN_MESSAGE_MAP(CPTDinpView, CView)
      //{ {AFX_MSG_MAP(CPTDinpView)
      ON COMMAND (ID_DATA_EDIT, OnDataEdit)
      ON COMMAND(ID_DATA_NEW, OnDataNew)
      // } }AFX_MSG_MAP
      // Standard printing commands
      ON COMMAND(ID_FILE_PRINT, CView::OnFilePrint)
      ON COMMAND(ID_FILE_PRINT_PREVIEW, CView::OnFilePrintPreview)
END_MESSAGE_MAP ( )

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//  CPTDinpView construction/destruction

CPTDinpView::CPTDinpView ( )
I
      //  TODO: add construction code here
      ShowPrt  =  FALSE;
}

CPTDinpView::-CPTDinpView ( )
{
}
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//  CPTDinpView drawing

void CheckOut(CDC*  pDC,  char  *str,  int  xpos, int  ypos, int  val)
{
      pDC->TextOut( xpos,  ypos,  str,  strlen(str)
```

```
      pDC ->Rectangle (CRect ( xpos -  6*29,  ypos -  2*29,  xpos -  2*29,
ypos    -  6*29));
      if(val)   {
            CBrush brush(RGB(0,0,0));
            pDC->FillRect(Crect ( xpos -  6*29,  ypos -  2*29,  xpos -
2*29,  ypos 6*29),&brush)
;
//    pDC->MoveTo(xpos - 6*29, ypos - 2*29);
//    pDC->LineTo( xpos - 2*29, ypos - 6*29);
//    pDC->MoveTo(xpos - 6*29, ypos - 6*29);
//    pDC->LineTo( xpos - 2*29, ypos -2*29);

void CPTDinpView::OnDraw(CDC* pDC)
{
      CPTDinpDoc* pDoc = GetDocument ( );
      CPTDinpApp* pApp = ((CPTDinpApp*)AfxGetApp ( );

ASSERT_VALID(pDoc);
CFont  font10, font12;
TEXTMETRIC tm;
int  nHeight;
int i;

// TODO: add draw code for native data here
pDC->SetMapMode(MM_TWIPS);
font12.CreateFont(-240,0,0,0,500, FALSE, FALSE, 0, ANSI-CHARSET,
            OUT_DEFAULT_PRECIS, CLIP_DEFAULT_PRECIS,
            DEFAULT_QUAZITY, DEFAULT_PITCH | FF_ROMAN, "Times New Roman");
CFont* pOldFont   =  (CFont*) pDC->SelectOb~ect(&font12);

pDC->GetTextMetrics(&tm);
nHeight  =  tm.tmHeight  +  tm.tmExternalLeading;

char str[2561;
char name[64];

//pDC- >Rectangle (CRect (0, 0, 11505, -15105));  //   FULL PAGE RECT

if(ShowPrt) {

      if(!pApp->EditMode)     {
            sprintf(str,"           ADEZA DIAGNOSTIC SERVICES");
            pDC->TextOut( 2440, ((-1 *  nHeight) - 720), str, strlen(str));

            sprintf (str, "Pre-Term Delivery Risk Assessment Software:");
            PDC->TextOut( 2440, ((-2 * nHeight) - 720), str, strlen(str) );

            sprintf(str,"                        Test Report Form ");
            pDC->TextOut( 2440, ((-3 * nHeight) - 720), str, strlen(str));

      }
}   else   {

      sprintf(str,"File: %s          ",pDoc->PathName);
      pDC->TextOut( 720, ((-1 *          nHeight) - 720), str, strlen(str)
);

      sprintf(str,"Current record: %ld          if, pDoc->CurRecord+1);
      pDC->TextOut( 720, ((-2 * nHeight) - 720), str, strlen(str)       );

      sprintf(str,"Number of records: %ld "pDoc->NumRecords);
```

```
      pDC->TextOut( 720,      ((-3 * nHeight) - 720), str, strlen(str)  );
}

if((ShowPrt &&   !pApp->EditMode) | | (!ShowPrt))     {

      sprintf(str," Lab ID #:");
      pDC->TextOut( 720, ((-5 * nHeight) - 720), str, strlen(str)       );
      sprintf(str,"           %s    ",PDoc->m_LAB_ID);
      pDC->TextOut(     4320, ((-5 * nHeightT - 720), str, strlen(str)  );

      strcpy( name,           pDoc->m_NAME_F);
      strcat( name,           "      ");
      strcat( name,           pDoc->m_NAME_MI);
      strcat( name,           "      ");
      strcat( name,           pDcc->m_NAME_L);
      sprintf(str,"           "  Patient Name: ");
      pDC->TextOut(           720, ((-6 * nHeight) - 720), str, strlen(str)
);
      sprintf(str,"           %s ",name);
      pDC->TextOut(           4320, ((-6 * nHeight) - 720), str,
strlen(str));

      pDoc->RunNets(pDoc->CurRecord);
      sprintf (str, " Pre-term Delivery Risk <34.6wks:            ");
      pDC->TextOut( 720, H-7 * nHeight) - 720), str, strlen(str)  );
      sprintf(str," %lf ",pDoc->m NetPosl);
      pDC->TextOut( 4320, ((-7 * nileight) - 720), str, strlen(str)     );

      sprintf(str,"                 Pre-term Delivery Risk <7 days: ");
      pDC->TextOut(                 720,   ((-8 * nHeight) - 720), str,
strlen(str)  );
      sprintf(str,"                 %lf    ",pDoc->m - NetPos2);
      pDC->TextOut(                 4320, ((-8 * nHeight) - 720), str,
strlen(str)  );

      sprintf(str,"                 Pre-term Delivery Risk <14 days: ");
      pDC->TextOut(                 720,  ((-9 * nHeight) - 720), str,
strlen(str)  );
      sprintf(str,"                 %lf    ",pDoc->m - NetPos3);
      pDC->TextOut(                 4320, ((-9 * nHeight)   720), str,
strlen(str)  );

      //if(pDoc->m             - ACOG_SYNPTOMS == "0")  {
      //    sprintf (str, "DISCLAIMER APPLIES:");
      //    pDC->TextOut( 720, ((-12 * nHeight) - 720), str, strlen(str)
);

      //}

      for( i = 5; i <= 10; i++)  {
      pDC->MoveTo(700,((-i          nHeight)    720));
      pDC->LineTo(8640,((-i         nHeight)    720));
      }
      pDC->MoveTo(700, ((-5               nHeight)  -  720));
      pDC->LineTo(700,    ((-10                 nHeight)   _  720));
      pDC->MoveTo(4320,((-5                 nHeight)    720));
      pDC->LineTo (4320, ((10 * nHeight) - 720)
      pDC->MoveTo(8640,((-5         nHeight)    720));
      pDC->LineTo(8640,((-10 * nHeight) - 720));
} else {
```

```
font10.CreateFont(-200,0,0,0,500, FALSE, FALSE, 0, ANSI_CHARSET,
      OUT DEFAULT PRECIS, CLIP DEFAULT PRECIS,
      DEFAULT QUALITY, DEFAULT_PITCH I-FF_ROMAN, "Times New Roman");
pDC->SelectObject(&font10);
//pDC->Rectangle(CRect( 0,0,11505,-15105));
pDC->Rectangle(CRect( 1*29,-4*29,397*29,-22*29));
pDC->Rectangle(CRect( 1*29,-24*29,397*29,-42*29));
pDC->Rectangle(CRect( 1*29,-44*29,187*29,-95*29));
pDC->Rectangle(CRect( 187*29,-44*29,397*29,-95*29));
pDC->Rectangle(CRect( 1*29,-97*29,397*29,-114*29));
pDC->Rectangle(CRect( 1*29,-116*29,397*29,-218*29));
pDC->Rectangle(CRect( 1*29,-220*29,397*29,-240*29));
pDC->Rectangle(CRect( 1*29, -242*29, 187*29, -348*29) ) ;
pDC->Rectangle(CRect( 187*29,-242*29,397*29,-348*29));
pDC->Rectangle(CRect( 1*29,-350*29,397*29,-375*29));
pDC->Rectangle(CRect( 1*29,-377*29,397*29,-404*29));
pDC->Rectangle(CRect( 1*29,-406*29,397*29,-425*29));
pDC->Rectangle(CRect( 1*29, -427*29, 397*29, -470*29) ) ;
sprintf (str, "ADEZA Pre-Term Delivery Risk Assessment  ");
pDC->Textout( 7*29f-10*29, str, strlen(str) );
sprintf(str,"Lab ID #: %s", pDoc->m - LAB_ID);
pDC->TextOut( 267*29,-10*29, str, strlen(str) );
sprintf(st.r,"PATIENT INFORMATION");
pDC->TextOut( 159*29,-29*29, str, strlen(str) );
strcpy( name, pDoc->m_NAME_L);
sprintf(str,"Name(las'E) %s", name);
pDC->TextOut( 7*29,-51*29, str, stzlen(str) );
strcpy( name, pDoc->m NAME F);
sprintf(str,"First %s, name);
PDC->TextOut( 99*29,-51*29, str, strlen(str) );
strcpy( name, pDoc->m_NAME_MI);
sprintf(str,"M %s", name);
pDC->TextOut( 160*29,-51*29, str, strlen(str) );
sprintf(str,"DOB %s", pDoc->m_DATE_OF_BIRTH);

pDC->TextOut( 7*29,-69*29, str,     strlen(str) );
sprintf(str,"Ethnic origin:");
pDC->TextOut( 192*29,-48*29,  str, strlen(str) );
CheckOut(pDC, "Caucasian", 248*29,-48*29, (pDoc->m_ETHNIC_ORIGIN_WHITE = =
"1") );
Checkout (pDC, "African American", 298*29, -48*29,
(pDoc->m_ETHNIC_ORIGIN_BLACK ==
"1")  );
CheckOut(pDC, "Asian", 368*29,-48*29, (pDoc->m_ETHNIC_ORIGIN_ASIAN = ="1")
CheckOut(pDC, "Hispanic", 248*29,-59*29, (pDoc- >m_ETHNIC_ORIGIN_HISPANIC =
= "1-)
);
Checkout (pDC, "Native American", 298*29,-59*29,
(pDoc->m_ETHNIC_ORIGIN_NATIVE_AME
RICAN = ="1") );
CheckOut(pDC, "Other", 368*29,-59*29, (pDoc->m_ETHNIC-ORIGIN-OTHER
sprintf(str,"Marital status:");
pDC->TextOut( 192*29,-72*29, str, strlen(str) );
CheckOut(pDC, "Married", 248*29,-72*29, (pDoc->m_MARITAL_STATUS_MARRIED =
="1")
;
CheckOut(pDC, "Single", 288*29,-72*29, (pDoc->m - MARITAL_STATUS_SINGLE
CheckOut(pDC,"Divorced/Separated", 322*29,-72*f9,
(pDoc-->m_MARITAL_STATUS_DIVORC
ED  = ="1") ) ;
```

```
CheckOut(pDC, "Widowed", 248*29,-83*29, (pDoc->m_MARITAL_STATUS_WIDOWED = =
"1") )
;
CheckOut(PDC, "Living with partner", 293*29,-83*29,
(pDoc->m_MARITAL_STATUS_LWP=
= "1") );
CheckOut(pDC, "Other", 368*29,-83*29, (pDoc->m_MARITAL_STATUS_OTHER = =
"1");
sprintf (str, "PATIENT HISTORY AND CLINICAL INFORMATION");
pDC->TextOut( 117*29,-102*29, str, strlen(str) );
sprintf(str,"At the time of sampling was the patient experiencing signs and
symp
toms of possible preterm labor?");
pDC->TextOut( 7*29,-119*29, str, strlen(str) );
Checkout (pDC, "Yes", 339*29, -119*29, (pDoc->m_ACOG_SYMPTOMS = = "l") );
CheckOut(pDC,"No", 370*29,-119*29, (pDoc->m_ACOG _SYMPTOMS   = =  "0")
sprintf(str,"It yes, please mark all that apply. ");
pDC->TextOut( 7*29,-134*29, str, strlen(str) );
CheckOut(pDC, "Uterine contractions with or without pain", 19*29,-145*29,
(pDoc->
m_PATIENT_COMPLAINT_1 = = "1") );
sprintf(str,"Number/hr");
PDC->TextOut( 22*29,-158*29, str, strlen(str) );
Checkout (pDC, "<l", 73*29,-158*29, (pDoc->m_PATIENT_COMPLAINT_1_LT1 = =
"1") );
CheckOut(pDC,111-3", 105*29,-158*29, (pDoc->m_PATIENT_COMPLAINT_1_1_3 = =
"1") );
CheckOut(pDC,"4-6'l, 137*29,-158*29, (pDoc->m_PATIENT_COMPLAINT 1_4_6 = =
"1") );
Checkout (pDC, "7-911, 73*29, -170*29, (pDoc->m_PATIENT_COMPLAINT_1_7_9 ==
"1") );
CheckOut(pDC,"10-12", 105*29,-170*29, (pDoc7>m_PATIENT_COMPLAINT_1_10_12 =
= "1")

CheckOut(pDC,">12", 137*29,-170*29, (pDoc->m_PATIENT_COMPLAINT_1 GT12 = =
"1") ;
CheckOut(pDC, "Vaginal bleeding", 19*29,-181*f9, (pDo-c -
>m_VAGINAL_BLEEDING = = "1"
) );

Checkout (pDC, "Trace" , 29*29, -194*29,  (pDoc->m VAGINAL_BLEEDING_TRACE =
= "1") );
CheckOut(pDC,"Med", 64*29,-194*29, (pDoc->m_VAGINAL_BEEEDING_MEDIUM = =
"1") );

Checkout (pDC, "Gross", 94*29, -194*29,          (pDoc->m VAGINAL BLEEDING
GROSS
= =  "1") );
CheckOut(PDC, "Patient is not ""feeling right"7111, 19*2-9,-205*29-,
(pDoc->m_PATIENT
COMPLAINT_6 = = -"1") );
CheckOut(pDC, "Bleeding during the second or third trimester",
167*29,-14S*29,          (p
Doc->m-PATIENT_COMPLAINT_3 = = "1") );
Checkout (pDC, "Intermittent lower abdominal pain, dull, low backpain,
pelvic pres
sure", 167*29,-157*29, (pDoc->m_PATIENT_COMPLAINT_2 = = "1") ) ;
Checkout (pDC, "Change in vaginal discharge_amount, color,or consistency",
167
*29,-181*29, (pDoc->m_PATIENT_COMPLAINT 5= ="1") );
```

```
Chec kOut (pDC, 7Menstrual- like    crimping (with or without diarrhea)",
167*29,-193*2
9, (pDoc->m_PATIENT_COMPLAINT_4 = = "1") );
sprintf (str, "Gestational Age: EGA by first trimester sono %s ",
pDoc->m_EGA_BY_S
ONO);
PDC->TextOut( 7*29,-225*29, str, strlen(str) );
sprintf (str, "EGA by LMP %s", pDoc->m_EGA_BY_LMP);
pDC->TextOut( 197*29,-225*29, str, strlen(str) );
sprintf(str,"EGA at sampling %s",pDoc->m_EGA_AT_SAMPLING);
pDC->TextOut( 287*29,-225*29, str, strlen(str ) );
sprintf(str,"Previous Pregnancy: Please mark all that apply.");
pDC->TextOut( 7*29,-249*29, str, strlen(str) );
CheckOut(pDC, "Previous pregnancy, no complications", 19*29,-260*29,
(pDoc->m_1_COMP = ="1") ) );
Checkout (pDC, "History of Preterm delivery", 19*29, -272*29,
(pDoc->m_2_COMP = = "1") );
sprintf(st.r,"if Yes, how many?");
PDC->TextOut( 22*29,-284*29, str, stzlen(str) );
CheckOut(pDC,111", 97*29,-284*29, (pDoc->m_2_COMP_1 = = "1',)
CheckOut(pDC,"2", 122*29,-284*29, (pDoc->m_2_COMP_2    = = "1")
CheckOut(pDC,">211, 147*29,-284*29, (pDoc->m_2_COMP_3 = = "1") );
CheckOut(pDC,"History of Preterm PROM" 19*29, - 269*29, (pDoc->m_3_COMP = =
"1") );

CheckOut(pDC, "History of incompetent cervix", 19*29,-308*29,
(pDoc->m_4_COMP = = "1") );
CheckOut(pDC, "History of PIH/preeclampsia", 19*29,-320*29, (pDoc->m_5_COMP
= = "1" ) );
CheckOut(pDC, "History of SAB prior to 20 wks", 19*29,-332*29,
(pDoc->m_6_COMP = =  "1") );
CheckOut(pDC, "Multiple Gestation:", 209*29,-272*29,
(pDoc->m_MULTIPLE_GESTATION == "1"));
CheckOut(pDC, "Twins", 284*29,-272*29, (pDoc->m_MULTIPLE_GESTATION_TWTNS ==
"1") );
CheckOut(pDC, "Triplets", 317*29,-272*29, (pDoc - >m_MULTI
PLE_GESTATION_TRIPLETS = = "1") );
CheckOut(pDC, "Quads", 356*29,-272*29, (pDoc->m_MULTIPLE_GESTATION_QUADS =
= "1") );
CheckOut(pDC, "Uterine or cervical abnormality", 209*29,-284*29,
pDoc->m_UTCERV_ABNORMALITY = - "1") );
CheckOut(pDC,"Cerclage", 209*29,-296*29, (pDoc->m_CERVICAL_CERCLAGE == "1")
); CheckOut(pDC, "Gestational Diabetes". 209*29,-308*-f9, (pDo
c7>m_GESTATIONAL_DIABETES = = "1"));
CheckOut(pDC, "Hypertensive Disorders". 209*29,-320*29,
(pDoc->m_HYPERTENSIVE_DISORDERS = ="1") );
sprint f (s tr, "Cervical Status immediately following sample
collection:");
pDC->TextOut( 7*29,-352*29, str, stzlen(str) );
sprintf(str,"Dilatation (cm)");
PDC->TextOut( 9*29,-364*29, str, strlen(str) CheckOut(pDC,"<l",
64*29,-364*29, (pDoc->m_DILITATION_LT1 = = "l")
CheckOut(pDC,'ll", 85*29,-364*29, (pDoc->m_DILITATION_1 = = "1") );
CheckOut(pDC,"1-2", 102*29,-364*29, (pDocl->m_DILITATION_1_2 = = "l")
Checkout (pDC, 1121', 123*29, -364*29, (pDoc->m_DILATION_2= = "1") ) ;
CheckOut(pDC,"2-3", 140*29,-364*29f (pDoc-m_DILITATION_2_3 == "1") );
CheckOut(pDC,'13", 163*29,-364*29, (pDoc->m_DILATION_3= = "1") );
CheckOut(pDC,">3'l, 180*29,-364*29, (pDoc->m,_DILATION_GT3 = = "l") );
Checkout (pDC, "Unknown", 201*29,-364*29, (pDoc->m_DILITATION_UNKNOWN = =
"1") );
sprintf(str,"Cervical consistancy");
```

```
pDC->TextOut( 249*29,-364*29, str, strlen(str) );
CheckOut(pDC, "Firm", 324*29,-364*29, (pDoc->m_CERVICAL_CONSISTANCY_FIRM =
= "1") );
CheckOut(pDC,"Mod", 350*29,-364*29, (pDoc->m_CERVICAL_CONSISTANCY_MOD = =
"1") );
Checkout (pDC, "Soft", 376*29,-364*29, (pDoc->m_CERVICAL_CONSISTANCY_SOFT =
= "1" ) );

sprintf (str, "Medications at Time of Test (check all that apply)");
pDC->TextOut( 7*29,-380*29, str, strlen(str) );
CheckOut(pDC, "Antibiotics", 23*29,-392*29, (pDoc->m_ANTIBIOTICS = = "1")
);
CheckOut(pDC,"Corticosteroids", 76*29,-392*29, (pDoc->m_CORTICOSTEROIDS = =
"1") );

Checkout (pDC, "Tocolytis", 144*29, -392*29, (pDoc->m_TOYOLYTICS = = "1" );
CheckOut(pDC, "Insulin", 193*29,-392*29, (pDoc->m_INSULIN = = "1") );
Chec kOut (pDC, "Antihypertensives ", 234*29,-392*29,
(pDoc->m_ANTIHYPERTENSIVES = = "1") );
Checkout (pDC, "None", 311*29,-392*29, (pDoc->m_MEDICATIONS_NONE == "1") );
Checkout (pDC, "Unknown", 348*29.,-392*29, (pDoc'~7>m MEDICATIZ5NS-UNKNOWN
sprintf (str, "Current Pregnancy: G: %s", pDoc->m_GRAVITY);
pDC->TextOut( 195*29,-249*29, str, strlen(str) );
sprintf(stz,"P: %s", pDoc->m_PARITY);
pDC->Textout( 303*29f-249*29, str, strlen(str) );
sprintf (str,"A: %s", pDoc->m_ABORTIONS);
pDC->Textout( 343*29,-249*29, str, strlen(str) );
sprintf (str, "Qualitative fFN Elisa Test Results:");
PDC->TextOut( 7*29,-411*29, str, strlen(str) );
CheckOut(pDC, "Positive", 144*29,-411*29, (pDoc->m_FFN_RESULT = = "1") );
CheckOut(pDC, "Negative", 234*29,-411*29, (pDoc->m__FFN_RESULT = ="0") );
sprintf (str, "Pre-term Delivery Risk <34.6wks: ");
pDC->TextOut( 7*29,-432*29, str, strlen(str) );
sprintf(st.r," %If ",pDoc->m - NetPosl);
pDC->TextOut( 150*29,-432*29, str, strlen(str) );
sprintf(str,"Pre-term Delivery Risk <7 days: ");
pDC->TextOut( 7*29, -444*29, str, strlen(str) );
sprintf(str," %If ",pDoc->m - NetPos2);
PDC->TextOut( 150*29, -444*29, str, strlen(str) );
sprintf (str, "Pre-term Delivery Risk <14 days: ");
pDC->TextOut( 7*29, -456*29, str, strlen(str) );
sprintf(str," %If ",pDoc->m NetPos3);
pDC->TextOut( 150*29, -456*29, str, strlen(str) );

//if(pDoc->m ACOG_SYNPTOMS = = "0") {
//    sprintf (str, "DISCLAINER APPLIES: ");
//    pDC->TextOut( 7*29, -480*29, str, strlen(str) );
//}

}
pDC->SelectObject(pOldFont);

}
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
// CPTDinpView printing

BOOL CPTDinpView::OnPreparePrinting(CPrintInfo* pInfo)
{
      //  default preparation
      return DoPreparePrinting(pInfo);
```

```
}
void CPTDinpView::OnBeginPrinting(CDC*  /*pDC*/, CPrintInfo* /*pInfo*/)

      //    TODO: add extra initialization before printing
      ShowPrt = TRUE;

}

void CPTDinpView::OnEndPrinting(CDC*  /*pDC*/, CPrintInfo* /*pInfo*/)
{
      //  TODO: add cleanup after printing
      ShowPrt = FALSE;
      GetDocument ( )->UpdateAllViews(NULL);
}
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//CPTDinpView diagnostics

#ifdef_DEBUG
void CPfDinpView::AssertValid ( ) const
}
      CView::AssertValid ( );
}
I void CPTDinpView::Dump(CDumpContext& dc) const
{
      CView::Dump(dc);
}
CPTDinpDoc* CPTDinpView: :GetDocument ( ) //    non-debug version is inline
{
      ASSERT(m_pDocument->IsKindOf(RUNTIME_CLASS(CPTDinpDoc)));
      return (CPTDinpDoc*)m_pDocument;
}

#endif //_DEBUG

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
// CPTDinpView message handlers

void CPTDinpView::Edit ( )
{

      CPTDInp dlg;

      int val;

      ((CPTDinpApp*)AfxGetApp ( ) )->NextDlgPage = 1;

m_pSet = GetDocument ( );

// initialize all the variables in the record to allow smooth cancel
///dlg.m - DATE_OF_DATA_ENTRY  =  m_P_Set->m_DATE_OF_DATA-ENTRY;
//dlg.M_PATIENT_AGE  =  M_pSet->m_PATIENT-AGE;
//CString m.._DATE_OF_BIRTH;
dlg.m_DATE_OF_BIRTH = m,_pSet->m_DATE_OF_BIRTH;
//CString m_NAME_F;
dlg.m_NAME_F = m_pSet - >m_NAME_F;
//CString m_NAME_L;
//dlg.m_NAME_L = m_pSet ->m_NAME_L;
//CString m_NAME_MI;
dlg.m_NAME_RI = M_pSet->m_NAME_MI;
```

```
//BOOL      m_1_COMP;
//dlg.m_1 COMP = (m_pSet->m_1_COMP = = "1");
//BOOL      m_2_COMP;
//dlg.m_2 COMP = (m_pSet->m_2_COMP = = "1");
//BOOL      m_3_COMP;
//dlg.m_3 COMP = (m_pSet->m_3_COMP = = "1");
//BOOL      m_4_COMP;
//dlg.m_4 COMP = (m_pSet->m_4_COMP = = "1");
//BOOL      m_5_COMP;
//dlg.m_5 COMP = (m_pSet->m_5_COMP = = "1");
//BOOL      m_6_COMP;
//dlg.m_6 COMP = (m_pSet->m_6_COMP = = "1");
//BOOL      m_ACOG_N;
//dlg.m_ACOG_N = (m_pSet->m_ACOG_SYNPTOMS = = "0");
//BOOL      m_ACOG_Y;
//dlg.m_ACOG_Y = (m_pSet->m_ACOG_SYNPTOMS = = "1");
//BOOL      m_ANTIBIOTICS ==
//dlg.m_ANTIBIOTICS = (m_pSet->m_ANTIBIOTICS = = "1");
//BOOL      m_AntiHyper;
//dlg.m_AntiHyper = (m_pSet->m_ANTIHYPERTENSIVES = = "1");
//BOOL      m_CervCerclage;
//dlg.m_CervCerclage = (m_pSet->m_CERVICAL_CERCLAGE = = "1");
//BOOL      m_CervFirm;
//dlg.m_CervFirm = (m_pSet->m_CERVICAL_CONSISTANCY_FIRM = = "1");
//BOOL      m_CervMod;
//dlg.m_CervMod = (m_pSet->m_CERVICAL_CONSISTANCY_MOD = = "1");
//BOOL      m_CervSoft;
//dlg.m_CervSoft = (m_pSet->m_CERVICAL_CONSISTANCY_SOFT = = "1");
//BOOL      m_Corticosteroids;
//dlg.m_Corticosteroids = (m_pSet->m_CORTICOSTERIODS= = "1");
//BOOL      m_Dilitation 1_2;
//dlg.m_Dilitation = (m_pSet->m_DILATION_1_2 = = "1");
//BOOL      m_Dilitation2;
//dlg.m_Dilitation2 = (m_pSet->m_DILATION_2 = = "1");
//BOOL      m_Dilitation2_3;
//dlg.m_Dilitation2_3 = (m_pSet->m_DILATION_2_3 = = "1");
//BOOL      m_Dilitation3;
//dlg.m_Dilitation3 = (m_pSet->m_DILATION_3 = = "1");
//BOOL      m_DilitationGt3;
//dlg.m_DilitationGt3 = (m_pSet->m_DILATION_GT3 = = "1");
//BOOL      m_Dilitation1;
//dlg.m_Dilitation1 = (m_pSet->m_DILATION_1 = = "1");
//BOOL      m_DilitationLt1;
//dlg.m_DilitationLt1 = (m_pSet->m_DILATION_LT1 = = "1");
//BOOL      m_DilitationUkn;
//dlg.m_DilitationUkn = (m_pSet->m_DILATION_UNKNOWN = = "1");
//CString m,_EGAatSample;
dlg.m,_EGAatSample = m_pSet->m-EGA-AT-SAMPLING;
//CString m,_EGAbyLMP;
dlg.m,_EGAbyLMP = m,_pSet->m_EGA_BY_LMP;
//CString m,_EGAbySONO;
dlg.m,_EGAbySONO = m,_pSet->m_EGA_BY_SONO;
//BOOL      m_EthnicOriginAsian;
dlg.m,_EthnicOriginAsian = m,_pSet->m_ETHNIC_ORIGIN_ASIAN = =; "1");
//BOOL      m_EthnicOriginBlack;
dlg.m,_EthnicOriginBlack = m,_pSet->m_ETHNIC_ORIGIN_BLACK = =; "1");
//BOOL      m_EthnicOriginHispanic;
dlg.m,_EthnicOriginHispanic = m,_pSet->m_ETHNIC_ORIGIN_HISPANIC = =; "1");
//BOOL      m_EthnicNativeAmerican;
dlg.m,_EthnicOriginNativeAmerican = m,_pSet->m_ETHNIC_ORIGIN_NATIVEAMERICAN
= =; "1");
```

```
//BOOL      m_EthnicNativeOther;
dlg.m,_EthnicOriginNativeOther = m,_pSet->m_ETHNIC_ORIGIN_OTHER= =; "1");
//BOOL      m_EthnicNativeWhite;
dlg.m,_EthnicOriginNativeWhite = m,_pSet->m_ETHNIC_ORIGIN_WHITE= =; "1");
//BOOL      m_FFN_Neg;
dlg.m,_FFN_Neg = m,_pSet->m_FFN_RESULT= =; "0");
//BOOL      m_FFN_Pos;
dlg.m,_FFN_Pos = m,_pSet->m_FFN_RESULT= =; "1");
//BOOL      m_GestationDiabetes;
dlg.m,_GestationDiabetes = m,_pSet->m_GESTATIONAL_DIABETES = =; "1");
//BOOL      m_HypertensiveDisorders;
dlg.m,_HypertensiveDisorders = m,_pSet->m_HYPERTENSIVE_DISORDERS = =; "1");
//BOOL      m_Insulin;
dlg.m,_Insulin = m,_pSet->m_INSULIN = =; "1");
//Cstring m_LadID;
dlg.m,_LadID = m,_pSet->m_LAB_ID = =; "1");
//BOOL      m_MedicationNone;
dlg.m,_MedicationNone = m,_pSet->m_MEDICATIONS_NONE = =; "1");
//BOOL      m_MedicationUnknown;
dlg.m,_MedicationUnknown = m,_pSet->m_MEDICATIONS_UNKNOWN = =; "1");
//BOOL      m_MultipleGestationQuads;
dlg.m,_ MultipleGestationQuads = m,_pSet->m_ MULTIPLE_GESTATION_QUADS = =;
"1");
//BOOL      m_MultipleGestationTriplets;
dlg.m,_ MultipleGestationTriplets = m,_pSet->m_ MULTIPLE_GESTATION_TRIPLETS
= =; "1");
//BOOL      m_MultipleGestationTwins;
dlg.m,_ MultipleGestationTwins = m,_pSet->m_ MULTIPLE_GESTATION_TWINS = =;
"1");
//BOOL      m_MaritalStatusDivorced;
dlg.m,_ MaritalStatusDivorced = m,_pSet->m_ MARITIAL_STATUS_DIVORCED = =;
"1");
//BOOL      m_MaritalStatusLWP;
dlg.m,_ MaritalStatusLWP = m,_pSet->m_ MARITIAL_STATUS_LWP = =; "1");
//BOOL      m_MaritalStatusMarried;
dlg.m,_ MaritalStatusMarried = m,_pSet->m_ MARITIAL_STATUS_MARRIED = =;
"1");
//BOOL      m_MaritalStatusOther;
dlg.m,_ MaritalStatusOther = m,_pSet->m_ MARITIAL_STATUS_OTHER = =; "1");
//BOOL      m_MaritalStatusSingle;
dlg.m,_ MaritalStatusSingle = m,_pSet->m_ MARITIAL_STATUS_SINGLE = =; "1");
//BOOL      m_MaritalStatusWidowed;
dlg.m,_ MaritalStatusWidowed = m,_pSet->m_ MARITIAL_STATUS_WIDOWED = =;
"1");
//BOOL      m_MultipleGestation;
dlg.m,_ MultipleGestation = m,_pSet->m_ MULTIPLE_GESTATION= =; "1");
//BOOL      m_PatientCompl;
dlg.m,_ PatientCompl = m,_pSet->m_ PATIENT_COMPLAINT_1= =; "1");
//BOOL      m_PatientComp2;
dlg.m,_ PatientComp2 = m,_pSet->m_ PATIENT_COMPLAINT_2= =; "1");
//BOOL      m_PatientComp3;
dlg.m,_ PatientComp3 = m,_pSet->m_ PATIENT_COMPLAINT_3= =; "1");
//BOOL      m_PatientComp4;
dlg.m,_ PatientComp4 = m,_pSet->m_ PATIENT_COMPLAINT_4= =; "1");
//BOOL      m_PatientComp5;
dlg.m,_ PatientComp5 = m,_pSet->m_ PATIENT_COMPLAINT_5= =; "1");
//BOOL      m_PatientComp6;
dlg.m,_ PatientComp6 = m,_pSet->m_ PATIENT_COMPLAINT_6= =; "1");
//BOOL      m_PatientComp6;
dlg.m,_ PatientComp6 = m,_pSet->m_ PATIENT_COMPLAINT_6= =; "1");
//BOOL      m_Tocolytics;
```

```
dlg.m,_Tocolytics = (m-pSet->m_TOYOLYTICS
//BOOL      m_UtCervAbnormal,
dlg.m,_UtCerUAbnormal = (m-pSet->m_UTCERV_ABNORMALITY = = . "1");
//BOOL      m_VaginalBleeding;
dlg.m_VaginalBleeding - (m_pSet->m - VAGINAL_BLEEDING "1");
//BOOL      m_VaginalBleedingGross;
dlg.m._VaginalBleedingGross = (m_pSet->m-VAGINAL_BLEEDING_GROSS
//BOOL      m_VaginalBleedingMed;
dlg.m_VaginalBleedingMed = (m_pSet->m_VAGINAL_BLEEDING_MEDIUM
//BOOL      m_VaginalBleedingTrace;
dlg.m,_VaginalBleedingTrace = (m_pSet->m_VAGINAL_BLEEDING_TRACE
//BOOL      m_2_COMP_1;
dlg.m_2_COMP_1 = (m_pSet->m_2_COMP_1 = = "1");
//BOOL      m_2_COMP_2;
//dlg.m_2_COMP_2 = (m_pSet->m_2_COMP_2 = = "1");
//BOOL      m_2_COMP_3;
//dlg.m_2_COMP_3 = (m_pSet->m_2_COMP_3 = = "1");
//CString m_ABORTIONS;
      dlg.m_ABORTIONS = m_pSet->m_ABORTIONS;
      //CString m_GRAVITY;
      dlg.m_GRAVITY = m_pSet->m_GRAVITY;
      //CString m_PARITY;
      dlg.m_PARITY = m_PSet->m_PARITY;
      //BOOL      m_PatCompl_1_3;
      dlg.m_PatCompl_1_3 = (m_pSet->m_PATIENT_COMPLAINT_1_1_3 = = "1");
      //BOOL      m_PatCompl_10_12,
      dlg.m_PatCompl_10_12 = (m_pSet->m_PATIENT_COMPLAINT_1_10_12 = = "1");
      //BOOL      m_PatCompl_4_6;
      dlg.m_PatCompl_4_6 = (m_pSet->m_PATIENT_COMPLAINT_1_4_6 = = "1");
      //BOOL      m_PatCompl_7_9;
      dlg.m_PatCompl_7_9 = (m_pSet->m_PATIENT_COMPLAINT_1_7_9 = = "1");
      //BOOL      m_PatCompl_GT12;
      dlg.m_PatCompl_GT12 = (m_pSet->m_PATIENT_COMPLAINT_1_GT12 = = "1");
      //BOOL      m_PatCompl_LT1;
      dlg.m_PatCompl_LT1 = (m_pSet->m_PATIENT_COMPLAINT_1_LT1 = = "1");

      if(dlg.DoModal() = = IDOK) {

            //dlg.m_DATE_OF_DATA_ENTRY = m_pSet->m_DATE_OF_DATA_ENTRY;
            //dlg.m_PATIENT_AGE = m_pSet->m_PATIENT_AGE;
            //CString m_DATE_OF_BIRTH;
            m_pSet->m_DATE_OF_BIRTH = dlg.m_DATE_OF_BIRTH;
            //CString m_NAME_F;
            m_pSet->m_NAME_F = dlg.m_NAME_F;
            //CString m_NAME_L;
            m_pSet->m_NAME_L = dlg.m_NAME_L;
            //CString m_NAME_MI;
            m_pSet->m_NAME_MI = dlg.m_NAME_MI;
            //BOOL      m_1_COMP;
            m_pSet->m_1-COMP = (dlg.m_1_COMP?"1":"0");
            //BOOL      m_2_COMP;
            m_pSet->m_2_COMP = (dlg.m_2_COMP?"1":"0");
            //BOOL      m_3_COMP;
            m_pSet->m_3_COMP = (dlg.m_3_COMP?"1":"0");
            //BOOL      m_4_COMP;
            m_pSet->m_4_COMP = (dlg.m_4_COMP?"1":"0");
            //BOOL      M_5_COMP;
            m_pSet->m_5_COMP = (dlg. m_5_COMP?"1":0")
            //BOOL      m_6_comp;
            m_pSet->m_6_COMP = (dlg. m_6_COMP?"1":"0");
            //BOOL      m_ACOG_N;
```

```
            m_pSet->m_ACOG_SYNPTOMS = (dlg.m_ACOG-N?"0":" ");
            //BOOL      m_ACOG_Y;
            m_pSet->m_ACOG_SYNPTOMS =
(dlg.m_ACOG_Y?"1":m_pSet->m_ACOG_SYNPTOMS);
            //BOOL      m_Antibiotics;
            m_pSet->m_ARTIBIOTICS = (dlg.m-Antibiotics?"1":"0");
            //BOOL      m_AntiHyper;
            m_PSet->m_ANTIHYPERTENSIVES = (dlg.m_AntiHyper?"1":"0");
            //BOOL      m CervCerclage;
            m_pSet->m_CIRVICAL_CERCLAGE = (dlg.m_CervCerclage?"1":"0");
            //BOOL      m CervFirm;
            m_pSet->m_CERVICAL_CONSISTANCY_FIRM = (dlg.m_CervFirm?"1":"0");
            //BOOL      m_CervMod;
            m_pSet->m_CERVICAL_CONSISTANCY_MOD = (dlg.m_CervMod?"1":"0");
            //BOOL      m_CervSoft;
            m_pSet->m_CERVICAL_CONSISTANCY_SOFT = (dlg.m_CervSoft?"1":"0");
            //BOOL      m_Corticosteroids;
            m_pSet->m_CORTICOSTEROIDS = (dlg.m_Corticosteroids?"1":"0");
            //BOOL      m_Dilitation1_2;
            m_pSet->m_DILITATION_1_2 = (dlg.m_Dilitation1_2?"1":"0");
            //BOOL      m_Dilitation2;
            m_pSet->m_DILITATION_2 = (dlg.m_Dilitation2?"1":"0");
            //BOOL      m_Dilitation2-3;
            m_pSet->m_DILITATION_2_3 = (dlg.m_Dilitation2_3?"1":"0");
            //BOOL      m_Dilitation3;
            m_pSet->m_DILITATION_3 = (dlg.m_Dilitation3?"1":"0");
            //BOOL      m_DilitationGt3;
            m_pSet->m_DILITATION_GT3 = (dlg.m_DilitationGt3?"1":"0");
            //BOOL      m_Dilitation1;
            m_pSet->m_DILITATION_1 = (dlg.m_Dilitation1?"1":"0");
            //BOOL      m_DilitationLt1;
            m_pSet->m_DILITATION_LT1 = (dlg.m_DilitationLt1?"1":"0");
            //BOOL      m_DilitationUkn;
            m_pSet->m_DILITATION_UNKNOWN = (dlg.m_DilitationUkn?"1":"0");
            //Cstring m_EGAatSample;
            m_pSet- >m_EGA_AT_SAMPLING = dlg. m_EGAatSample;
            //CString m_EGAbyLMP;
            m_pSet->m_EGA_BY_LMP = dlg.m_EGAbyLMP;
            //CString m_EGAbySONO;
            m_pSet->m_EGA_BY_SONO = dlg.m_EGAbySONO;
            //BOOL      m_EthnicOriginAsian;
            m_pSet->m_EYHNIC_ORIGIN_ASIAN =
(dlg.m_EthnicOriginAsian?"1":"0");
            //BOOL      m_EthnicOriginBlack;
            m_pSet->m_ETHNIC_ORIGIN_BLACK =
(dlg.m_EthnicOriginBlack?"1":"0");
            //BOOL      m_EthnicOriginHispanic;
            m_pSet->m_ETHNIC_ORIGIN_HISPANIC =
(dlg.m_EthnicOriginHispanic?"1":"0");
            //BOOL      m_EthnicOriginNativeAmerican;
            m_pSet- >m_ETHNIC_ORIGIN_NATIVE_AMERICAN =
(dlg.m_EthnicOriginNativeAmerican?"1":"0")
            //BOOL      m_EthnicOriginOther;
            m_pSet->m_ETHNIC_ORIGIN_OTHER =
(dlg.m_EthnicOriginOther?"1":"0");
            //BOOL      m_EthnicOriginWhite;
            m_pSet->m_ETHNIC_ORIGIN_WHITE =
(dlg.m_EthnicOriginWhite?"1":"0")
            //BOOL      m_FFN_Neg;
            m_pSet->mFFN_RESULT = (dlg.m_FFN_Neg?"0":" ");
            //BOOL      m_FFN_Pos;
```

```
            m_pSet->m_FFN_RESULT =
(dlg.m_FFN_Pos?"1":m_pSet->m_FFN_RESULT);
            //BOOL      m_GestationalDiabetes;
            m_pSet->m_GESTATIONAL_DIABETES =
(dlg.m_GestationalDiabetes?"1":"0");
            //BOOL      m_HypertensiveDisorders;
            m_pSet->m_HYPERTENSIVE_DISORDERS =
(dlg.m_HypertensiveDisorders?"1":"0");
            //BOOL      m_Insulin;
            m_pSet->m_INSULIN = (dlg.m_Insulin? "1":"0")
            //CString m_LadID;
            m_pSet->m_LAB_ID = dlg.m_LadID;
            //BOOL      m_MedicationNone;
            m_pSet->m_MEDICATIONS_NONE = (dlg.m_MedicationNone?"1":"0");
            //BOOL      m_MedicationUnknown;
            m_pSet->m_MEDICATIONS_UNKNOWN =
(dlg.m_MedicationUnknown?"1":"0");
            //BOOL      m_MultipleGestationQuads;
            m_pSet->m_MULTIPLE_GESTATION_QUADS =
(dlg.m_MultipleGestationQuads?"1":"0");
            //BOOL      m_MultipleGestationTriplets;
            m_pSet->m_MULTIPLE_GESTATION_TRIPLETS =
(dlg.m_MultipleGestationTriplets?"1":"0");
            //BOOL      m_MultipleGestationTwins;
            m_pSet->m_MULTIPLE_GESTATION_TWINS =
(dlg.m_MultipleGestationTwins?"1":"0");
            //BOOL      m_MaritalStatusDivorced;
            m_pSet->m_MARITAL_STATUS_DIVORCED =
(dlg.m_MaritalStatusDivorced?"1":"0");
            //BOOL      m_MaritalStatusLWP;
            m_pSet->m_MARITAL_STATUS_LWP -
(dlg.m_MaritalStatusLWP?"1":"0");
            //BOOL      m_MaritalStatusMarried;
            m_pSet->m_MARITAL_STATUS_MARRIED =
(dlg.m_MaritalStatusMarried?"1":"0");
            //BOOL      m_MaritalStatusOther;
            m_pSet->m_MARITAL_STATUS_OTHER - (dlg.m_MaritalStatusOther?"1":
"0");
            //BOOL      m_MaritalStatusSingle;
            m_pSet->m_MARITAL_STATUS_SINGLE =
(dlg.m_MaritalStatusSingle?"1":"0");
            //BOOL      m_MaritalStatusWidowed;
            m_pSet->m_MARITAL_STATUS_WIDOWED =
(dlg.m_MaritalStatusWidowed?"1":"0");
            //BOOL      m_MultipleGestation;
            m_pSet->m_MULTIPLE_GESTATION = (dlg
m_MultipleGestation?"1":"0");
            //BOOL      m_PatientCompl;
            m_pSet->m_PATIENT_COMPLAINT_1 = (dlg.m_PatientCompl?"1":"0");
            //BOOL      m_PatientComp2;
            m_pSet->m_PATIENT_COMPLAINT_2 = (dlg.m_PatientComp2?"1":"0");
            //BOOL      m_PatientComp3;
            m_pSet->m_PATIENT_COMPLAINT_3 = (dlg.m_PatientComp3?"1":"0");
            //BOOL      m_PatientComp4;
            m_pSet->m_PATIENT_COMPLAINT_4 = (dlg.m_PatientComp4?"1":"0");
            //BOOL      m_PatientComp5;
            m_pSet->m_PATIENT_COMPLAINT_5 = (dlg.m_PatientComp5?"1":"0");
            //BOOL      m_PatientComp6;
            m_pSet->m_PATIENT_COMPLAINT_6 = (dlg.m_PatientComp6?"1":"0");
            //BOOL      m_Tocolytics;
            m_pSet->m_TOYOLYTICS = (dlg.m_Tocolytics?"1":"0");
```

```
            //BOOL      m_UtCervAbnormal;
            m_pSet->m_UTCERV_ABNORMALITY = (dlg.m_UtCervAbnormal?"1":"0");
            //BOOL      m_VaginalBleeding;
            m_pSet->m_VAGINAL_BLEEDING = (dlg.m_VaginalBleeding?"1":"0");
            //BOOL      m_VaginalBleedingGross;
            m_pSet->m_VAGINAL_BLEEDING_GROSS =
(dlg.m_VaginalBleedingGross?"1":"0")
            //BOOL      m_VaginalBleedingMed;
            m_pSet->m_VAGINAL_BLEEDING_MEDIUM =
(dlg.m_VaginalBleedingMed?"1":"0");
            //BOOL      m_VaginalBleedingTrace;
            m._pSet->m_VAGINAL_BLEEDING_TRACE =
(dlg.m_VaginalBleedingTrace?"1":"0");
            //BOOL      m_2_COMP_1;
            m_pSet->m_2 COMP_1 = (dlg. m_2_COMP_1?"1":"0");
            //BOOL      m_2_COMP_2;
            m_pSet->m_2COMP_2 = (dlg. m_2_COMP_2?"1":"0") ;
            //BOOL      m_2_COMP_3;
            m_pSet->m_2_COMP_3 = (dlg. m_2_COMP_3?"1":"0") ;
            //CString m_ABORTIONS;
            m_pSet->m_ABORTIONS = dlg.m_ABORTIONS;
            //Cstring m_GRAVITY;
            m_pSet->m_GRAVITY = dlg.m_GRAVITY;
            val = atoi(m_pSet->m_GRAVITY);
            if(val == 0) {
                  m_pSet->m_0_COMP = "1";
            } else {
                  m_pSet->m_0_COMP = "0";
            }
            //CString m_PARITY;
            M_pSet->m_PARITY = dlg.m_PARITY;
            //BOOL      m_PatComp1_1_3;
            m_pSet->m_PATIENT_COMPLAINT_1_1_3 =
(dlg.m_PatComp1_1_3?"1":"0");
            //BOOL      m_PatComp1_10_12;
            m_pSet->m_PATIENT_COMPLAINT_1_10_12 =
(dlg.m_PatComp1_10_12?"1":"0");
            //BOOL      m_PatComp1_4_6;
            m_pSet->m_PATIENT_COMPLAINT_1_4_6 =
(dlg.m_PatComp1_4_6?"1":"0");
            //BOOL      m_PatComp1_7_9;
            m_pSet->m_PATIENT_COMPLAINT_1_7_9 =
(dlg.m_PatComp1_7_9?"1":"0");
            //BOOL      m PatComp1_GT12;
            m_pSet->m_PATIENT_COMPLAINT_1_GT12 =
(dlg.m_PatComp1_GT12?"1":"0");
            //BOOL      m_PatComp1_LT1;
            m_pSet->m_PATIENT_COMPLAINT_1_LT1 =
(dlg.m_PatComp1_LT1?"1":"0");

            // generate the net fields
            m_pSet->RunNets(m_pSet->CurRecord);

            // write the record to the file
            m_pSet->put_rec(m_pSet->Rec);

      }

}

int CPTDinpView::str2int( CString& str )
```

```
{
      if(str = = "0") return 2;
      if(str = = "1") return 1;
      if(str = = "2") return 0;
      return -1;
}

char* CPTDinpView::int2str( int val )
{
      if(val = = 0) return "2";
      if(val = = 1) return "1";
      if(val = = 2) return "0";
      return " ";
}

int CPTDinpView::yn2int( CString& str )
{
      if(str = = "0") return 1;
      if(str = = "1") return 0;
      return -1;
}

char* CPTDinpView::int2yn( int val )
{
      if(val = = 0) return "1";
      if(val = = 1) return "0";
      return " ":
}

void CPTDinpView::OnDataEdit( )
{
      CPTDinpDoc*pDoc = GetDocument( );
      FILE *fp;

      fp = fopen(pDoc->PathName,"rb");
      if(fp!=NULL) {
            fclose(fp);
      } else {
            CFileDialog Dlg (TRUE, "fdb", NULL, OFN_OVERWRITEPROMPT ,
                  "FDB iles (*.fbd) ??*);
            Dlg.m_ofn.1pstrTitle = "Open Fixed length DataBase file";
      if( Dlg.DoModal() == IDOK ) {
                  strcpy (pDoc->PathName, Dlg. GetPathName ());
                  fp = fopen(pDoc->PathName,"rb");
                  if(fp= =NULL) {
                        AfxMessageBox("Unable to open Database File!");
                        return;
                  }
                  pDoc->CurRecord = 0;
                  fseek(fp,0L,SEEK_END);
                  pDoc->NumRecords = ftell(fp) / (REC_LENGTH+2L);
                  fclose(fp);
            }
      }

      Edit( );

}

void CPTDinpView::OnDataNew( )
{
```

```
FILE *fp;

      CPTDinpDoc* pDoc = GetDocument( );

      create a new record
            fp = fopen(pDoc->PathName,"ab");
            if(fp!=NULL) {
                  fwrite (pDoc->Rec, sizeof (char), (REC_LENGTH + 2L), fp)
                  fclose(fp);
            }
            pDoc->InitializeRec();
            pDoc->NumRecords += 1;
            pDoc->CurRecord = pDoc->NumRecords - 1;
            pDoc->put_rec(pDoc->Rec);
      // edit the new record
            pDoc->get_rec(pDoc->Rec);
            Edit( );
}

//  PTDIVW.h  :  interface of the CPTDinpView class
//
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////

class CPTDinpView  :  public  CView

protected:  //  create from serialization only
      CPTDinpView( );
      DECLARE_DYNCRF.ATE(CPTDinpView)

//Attributes
public:
      CPTDinpDoc* GetDocument ( );

      BOOL ShowPrt;

      CPTDinpDoc* m_pSet;
      void Edit( void );

//  Operations
public:
      // conversions for dialogs
      int  str2int( CString& str );
      char* int2str( int val );
      int  yn2int( CString& str );
      char* int2yn( int val );

//  Implementation
public:
      virtual -CPTDinpView( );
      virtual void OnDraw(CDC* PDC);  //  overridden to draw this view
#ifdef_DEBUG
      viriual void AssertValid( ) const;
      virtual void Dump(CDumpContext&  dc) const;
#endif

protected:

      //  Printing support
      virtual BOOL OnPreparePrinting(CPrintlnfo* pInfo);
      virtual void OnBeginPrinting(CDC* pDC, CPrintInfo* pInfo);
```

```
      virtual void OnEndPrinting(CDC* pDC, CPrintInfo* pInfo);

//  Generated message map functions
protected:
      //{{AFX_MSG(CPTDinpView)
      afx_msg void OnDataEdit ( );
      afx_msg void OnDataNew ( );
      //}}AFX_MSG
      DECLARE_MESSAGE_MAP ( )
};

#ifndef_DEBUG // debug version in PTDivw.cpp
inline CPTDinpDoc* CPTDinpView: : GetDocument ( )
      {  return (CPTDinpDoc*)m_pDocument;  }
#endif
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////



// stdafx.cpp : source file that includes just the standard includes
// stdafx.pch will be the pre-compiled header
// stdafx.obj will contain the pre-compiled type information

#include "stdafx.h"



//  stdafx.h :  include file for standard system include files,
//  or project specific include files that are used frequently, but
//    are changed infrequently

#include <afxwin.h>      //  MFC core and standard components
#include <afxext.h>            //  MFC extensions (including VB)
#include <afxdb.h>             //  MFC database classes


//
//  ENDOINP.RC2 - resources App Studio does not edit directly
//

#ifdef APSTUDIO_INVOKED
      #error this file is not editable by App Studio
#endif  //APSTUDIO_INVOKED

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//  Version stamp for this  .EXE

#include "ver.h"

VS_VERSION_INFO          VERSIONINFO
      FILEVERSION        1,0,0,1
      PRODUCTVERSION     1,0,0,1
      FILEFLAGSMASK            VS_FFI_FILEFLAGSMASK
      #ifdef _DEBUG
      FILEETAGS
VS_FF_DEBUG|VS_FF_PRIVATEBUILD|VS_FF_PRERELEASE
#else
      FILEFLAGS                0 // final version
#endif
```

```
      FILEOS                  VOS_DOS_WINDOWS16
      FILETYPE                VFT_APP
      FILESUBTYPE       0  //  not used
BEGIN
      BLOCK "StringFileInfo"
      BEGIN
      BLOCK "040904E4" // Lang=US English, CharSet=Windows Multilingual
      BEGIN
            VALUE "CompanyName",           "\0"
            VALUE "FileDescription",             "ENDOINP MFC Application\0"
            VALUE "FileVersion",           "1.0.001\0",
            VALUE "InternalName",          "ENDOINP\0"
            VALUE "LegalCopyright",        "\0"
            VALUE "LegalTrademarks",       "\0"
            VALUE "OriginalFilename",      "ENDOINP.EXE\0"
            VALUE "ProductName",           "ENDOINP\0"
            VALUE "ProductVersion",        111.0.001\01,
      END
END
BLOCK "VarFileInfo"
BEGIN

      VALUE "Translation", 0x409, 1252
            //  English language (0x409) and the Windows ANSI codepage
(1252)
      END
END
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//  Add additional manually edited resources here...

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////


//{{NO DEPENDENCIES}}
App Studio generated include file.
//Used by PTDINP.RC

#define APS_3D_CONTROLS       1
#define YDD_TBOUTBOX                  100
#define IDD_ENDOIN_FORM               101
#define IDD_ENDO_PG01                 102
#define IDD_ENDO_PG02                 103
#define IDD_ENDO_PG03                 104
#define IDD_ENDO_PG04                 105
#define IDD_ENDO_PG05                 106
#define IDD_ENDO_PG06                 107
#define IDD_ENDO_PG07                 108
#define IDD_ENDO_PGOS                 109
#define IDD_ENDO_PG09                 110
#define IDD_ENDO_PG10                 111
#define IDD_ENDO_PG11                 112
#define IDD_ENDO_PG12                 113
#define IDD_ENDO_PG13                 114
#define IDD_ENDO_PG14                 115
#define IDD_ENDO_SP04A                116
#define IDD_ENDO_SP04B                117
#define IDD_ENDO_SP07A                118
#define IDD_ENDO_SP08A                119
#define IDD_ENDO_SP08B                120
```

```
#define IDR_MAINFRAME                128
#define IDR_ENDOINTYPE               129
#define IDP_FAILED_OPEN_DATABASE     130
#define IDD_ENDO_S908C               131
#define IDD_ENDO_PG15                132
#define IDD_ENDO_SP10A               133
#define IDD_ENDO_SP08D               134
#define IDD_ENDO_SP09A               135
#define IDD_ENDO_SP08E               136
#define IDD_ENDO_PGO                 137
#define IDD_ENDO_PG77                138
#define IDD_D_PT5_INP                139
#define IDD_D_GOT5                   140
#define IDB_BITMAP1                  141
#define IDC_E_DATE                   1000
#define IDC_E_ADEZA_ID               1001
#define IDC_E_INST_ID                1002
#define IDC_E_AGE_MENS2              1002
#define IDC_E_ADEZA_ID2              1002
#define IDC_E_TOTAL_POINTS           1002
#define IDC_E_PAT_BIRTHDATE          1003
#define IDC_E_PAT_ZIPCODE            1004
#define IDC_E_PAT_OCCUPATION         1005
#define IDC_C_PAT_WHITE              1006
#define IDC_C_PAT_BLACK              1007
#define IDC_C_PAT_HISPANIC           1008
#define IDC_C_PAT_ASIAN              1009
#define IDC_C_PAT_OTHER              1010
#define IDC_C_PAT_HIGHSCHOOL         1011
#define IDC_C_PAT_COLLEGE            1012
#define IDC_C_PAT_GRADUATE           1013
#define IDC_C_PAT_POSTGRAD           1014
#define IDC_C_MARRIED                1015
#define IDC_B_GOBACK                 1016
#define IDC C SP WHITE               1017
#define IDC C_SP_BLACK               1018
#define IDC C_SP_HISPANIC            1019
#define IDC_C_SP_ASIAN               1020
#define IDC_C_SP_OTHER               1021
#define IDC_C_SP_HIGHSCHOOL          1022
#define IDC_C_SP_COLLEGE             1023
#define IDC_C_SP_GRADUATE            1024
#define IDC_C_SP_POSTGRAD            1025
#define IDC_E_SP_OCCUPATION          1026
#define IDC_E_PAT_AGE                1027
#define IDC_C_PAT_FLAG               1028
#define IDC_R_DIAB_MELL1             1029
#define IDC_R_DIAB_MELL2             1030
#define IDC_R_DIM_MELL3              1031
#define IDC_B_PREV_PG                1032
#define IDC_R_OTHER_STD1             1033
#define IDC_R_OTHER_STD2             1034
#define IDC_R_PI_DIAB1               1035
#define IDC_R_PI_DIAB2               1036
#define IDC_R_PI_DIAB3               1037
#define IDC_R_OTHER_STD3             1038
#define IDC_R_VAG_IRF1               1039
#define IDC_R_VAG_INF2               1040
#define IDC_R_VAG_INF3               1041
#define IDC_R_GEN_WARTS1             1042
#define IDC_R-GEN-WARTS2             1043
```

```
#define IDC_R_GEN_WARTS3            1044
#define IDC_R_UT_YUB_ABNORI         1045
#define IDC_R_UT_TUB_ABNOR2         1046
#define IDC_R_UT_TUB_ABNOR3         1047
#define IDC_R_DYS_UT_BLEED1         1048
#define IDC_R_DYS_UT_BLEED2         1049
#define IDC_R_HYPERTEN1             1050
#define IDC_R_DYS_UT_BLEED3         1050
#define IDC_R_HYPERTEN2             1051
#define IDC_R_SMOKING1              1051
#define IDC_R_HYPERTEN3             1052
#define IDC_R_SMOKING2              1052
#define IDC_R_PI_HYPERTEN1          1053
#define IDC_R_S140_KING3            1053
#define IDC_R_PI_HYPERTEN2          1054
#define IDC_R_DRUG_ABUSE1           1054
#define IDC_R_PI_HYPERTEN3          1055
#define IDC_R_DRUG_ABUSE2           1055
#define IDC_R_AUTO_IMMUNE1          1056
#define IDC_R_DRUG_ABUSE3           1056
#define IDC_R_AUTO_IMMUNE2          1057
#define IDC_R_PRES_MED1             1057
#define IDC_R_AUTO_INMUNE3          1058
#define IDC_R_PRES_MED2             1058
#define IDC_R_PRES_MED3             1059
#define IDC_R_DYS_UT_BLEED4         1059
#define IDC_R_UNDETERMINED2         1060
#define IDC_R_OV_CYST1              1061
#define IDC_R_ORG_TRANS1            1062
#define IDC_R_OV_EYST2              1062
#define IDC_R_ORG_TRANS2            1063
#define IDC_R_OV_CYST3              1063
#define IDC_R_OTHER_CUR1            1063
#define IDC_R_ORG_TRANS3            1064
#define IDC_R_POLY_OV_SYNDI         1064
#define IDC_R_OTHEK_CUR2            1064
#define IDC_R_PEL_INFL_DIS1         1065
#define IDC_POLY_OV_SYND2           1065
#define IDC_R_PEL_INFL_DIS2         1066
#define IDC_R_POLY_OV_SYND3         1066
#define IDC_R_PEL_INFL_DIS3         1067
#define IDC_R_AB_PAP_DYSPL1         1067
#define IDC_R_HERPEST1              1068
#define IDC_R_AB_PAP_DYSPL2         1068
#define IDC_R_HERPES2               1069
#define IDC_R_AB_PAP_DYSPL3         1069
#define IDC_R_HERPES3               1070
#define IDC_R-GYN_CANSER3           1070
#define IDC_R_GYN_CANSER2           1071
#define IDC_R_GYN_CANSERI           1072
#define IDC_R_FIBTOIDS3             1073
#define IDC_R_FIBROIDS2             1074
#define IDC_R_FIBROIDS1             1075
#define IDC_R_OTHER_HX3             1076
#define IDC_R_OTHER_HX2             1077
#define IDC_R_OTHER_HXI             1078
#define IDC_R_PELVIE_PAIN1          1079
#define IDC_R_ECTOPIC_PREG1         1079
#define IDC_R_PELVIC_PAIN2          1080
#define IDC_R_ECTOPIC_PREG2         1080
#define IDC_R_ABDOM_PAIN1           1081
```

```
#define IDC_R_ECTOPIC_PREG3          1081
#define IDC_ABDOM_PAIN2              1082
#define IDC_R_MENS_ABNORMI           1083
#define IDC_R_MENS_ABNORM2           1084
#define IDC_R_DYSMEN1                1085
#define IDC_R_DYSMEN2                1086
#define IDC_R_DISPAR1                1087
#define IDC_R_DISPAR2                1088
#define IDC_R_INFERTILITY1           1089
#define IDC_R_INFERTILITY2           1090
#define IDC_R_ADN_MAS_THICK1         1091
#define IDC_R_ADN_MAS_THICK2         1092
#define IDC_R_OVARIAN_CYST1          1093
#define IDC_R_OVARIAN_CYST2          1094
#define IDC_R_UNDETERMINED1          1095
#define IDC_E_CUR_SYM_OTHER          1096
#define IDC_R_MENST_REG1             1097
#define IDC_R_MENST_REG2             1098
#define IDC_E_LAST_PERIOD            1099
#define IDC_E_RECENT_PART            1100
#define IDC_E_GRAVIDITY              1101
#define IDC_E_PARITY                 1102
#define IDC_R_HX_INFERT1             1103
#define IDC_R_HX_INFERT2             1104
#define IDC_R_OV_STAT_KNOWN1         1105
#define IDC_R_OV_STAT_KNOWN2         1106
#define IDC_E_SPONT_ABORT            1107
#define IDC_R_MENS_FLOW1             1107
#define IDC_E_ELECT_ABORT            1108
#define IDC_R_MENS_FLOW2             1108
#define IDC_R_MENS_FLOW3             1109
#define IDC_R_HX_OF_END01            1110
#define IDC_R_HX_OF_END=             1111
#define IDC_R_HX_PEL_SURG1           1112
#define IDC_R_HX_PEL_SURG2           1113
#define IDC_R_HORMON_MED1            1114
#define IDC_R_HORMONE_MED2           1115
#define IDC_E_CUR_SURG_DATE          1116
#define IDC_E_CUR_SURG_REASON2       1117
#define IDC_C_DIAG_LA_PAR            1118
#define IDC_CLASER_OBLIT             1119
#define IDC_C_SURG_EXCISION          1120
#define IDC_C_BI_SAL_OOPH            1121
#define IDC_C_UNIL_OOPH              1122
#define IDC_C_EXC_OV_CYST            1123
#define IDC_C_OLULA                  1124
#define IDC_C_HYSTERECTOMY           1125
#define IDC_C_HYSTEROSCOPY           1126
#define IDC_C_D_AND_C                1127
#define IDC_C_CUR_SURG_OTHER         1128
#define IDC_C_NORM_PEL               1129
#define IDC_ENDO_PRESENT             1130
#define IDC_C_ADHESIONS_PRES         1131
#define IDC_C_FIBROIDS_TRES          1132
#define IDC_C_PELV_INF_DISEASE       1133
#define IDC_C_GYN_CANCER             1134
#define IDC_C_OTHER_GYN_DIS          1135
#define IDC_R_AFS_STG1               1136
#define IDC_R-AFS_STG2               1137
#define IDC_R_AFS_STG3               1138
#define IDC_R_AFS_STG4               1139
```

```
#define IDC_C_BLUE_BK_LESIONS        1141
#define IDC_C_RED_LESIONS            1142
#define IDC_C_WHITE_LESIONS          1143
#define IDC_R_PEL_ADH_PRES1          1144
#define IDC_R_PEL_ADH_PRES2          1145
#define IDC_R_AW_CORF_BIOPSY1        1146
#define IDC_R_ENDO_CONF_BIOPSY2      1147
#define IDC_b-OVERIES_AT             1148
#define IDC_C_OVERIES_ADH            1149
#define IDC_C_FALLOP_EST             1150
#define IDC_C_FALLOP_ADH             1151
#define IDC_C_UT_LIG_EST             1152
#define IDC_C_UT_LIG_ADH             1153
#define IDC_C_CULDESAC_EST           1154
#define IDC_C_CULDESAC_ADH           1155
#define IDC_C_BROAD_LIG_EST          1156
#define IDC_C_BROAD_LIG_ADH          1157
#define IDC_C_PEL_SYDE_EST           1158
#define IDC_C_PEL_SIDE_ADH           1159
#define IDC_C_VESIC_EST              1160
#define IDC_C_VESIC_ADH              1161
#define IDC_C_OTHER_EST              1162
#define IDC_C_OTHER_ADH              1163
#define IDC_E_PID_DATE               1164
#define IDC_R_HAVE_PID1              1165
#define IDC_E_PID_LOC_SPECIFY        1165
#define IDC_E_ADDL_PID               1165
#define IDC_R_HAVE_PID2              1166
#define IDC_E_PID_LOC_SPECIFY2       1166
#define IDC_C_PID_C_LAPS             1167
#define IDC_C_PID_C_LAPT             1168
#define IDC_C_PID_C_DIFF_DIAG        1169
#define IDC_C_PID_C_UNDET            1170
#define IDC_E_PID_A_SPECIFY          1171
#define IDC_R_PID_CONF_SURG1         1172
#define IDC_R_GC_HISTOLOGY1          1172
#define IDC_R_P15_CONF_SURG2         1173
#define IDC_R_GC_HISTOLOGY2          1173
#define IDC_C_PID_M_ORG_UNKNOWN      1174
#define IDC_C_PID_ORG_NEISS          1175
#define IDC_C_PID_M_ORG_CH_TR        1176
#define IDC_C_PID_M_ORG_GM           1177
#define IDC_C_PID_M_ORG_OTHER        1178
#define IDC_C_PID_M_LOC_VAGINA       1179
#define IDC_C_PID_LOC_CERVIX         1180
#define IDC_C_PID_LOC_OVARIES        1181
#define IDC_C_PID_LOC_FALLOP         1182
#define IDC_C_PID_LOC_OTHER          1183
#define IDC_E_PID_ORG_SPECIFY        1184
#define IDC_R_GC_PRIMARY             1185
Nefine IDC_R_GC_PRIMARY2             1186
Nefine IDC_R_GC_PRIMARY3             1187
#define IDC_R_GC_PRIMARY4            1188
#define IDC_R_GC_GRADEI              1189
Kefine IDC_R_GC_STAGE2               1190
Kefine IDC_R_GC_STAGE3               1191
Nefine IDC_R_GC_STAGE4               1192
#define IDC_R_GC_STAGE5              1193
#define IDC_R_GC_GRADE2              1194
#define IDC_R_GC_GRADE3              1195
#define IDC_R_GC_STAGE1              1196
```

```
#define IDC_E_GC_TUMOR_TYPE          1197
#define IDC_E_GC_SITES_SPECIFY       1198
#define IDC_E_GC_ADD_INFO            1199
#define IDC_E-PKS_PER_DAY            1200
#define IDC_E_OTHER_STD_SPECIFY      1201
#define IDC-E - PRES-MED_DRUG1                1202
#define IDC_E_PRES_MED_DATE1                  1203
#define IDC_E_PRES_MED_DRUG2                  1204
#define IDC_E_OTHER_HX_SPECIFY                1204
#define IDC_E_PRES_MED_DATE2                  1205
#define IDC_C_INFERT_PRI                      1205
#define IDC_E_PRIMARY_LEN                     1206
#define IDC_C_INFERT_SEC                      1207
#define IDC_C_HOR_MED1                        1207
#define IDC_ESECONDARY_LEN                    1208
#define IDC_E_HOR_MED_DOSE1                   1208
#define IDC_E_HOR_MED_DATE1                   1209
#define IDC_E_PEL_SURG_TYPE1                  1209
#define IDC_E_HOR_MED_PURP1                   1210
#define IDC_E_PEL_SURG_DATE1                  1210
#define IDC_C_HOR_MED2          -             1211
#define IDC_E_PEL_SURG_DATE2                  1211
#define IDC_R_OVUL_STAT1                      1211
#define IDC_E_HOR_MED_DOSE2                   1212
#define IDC_E_PEL_SURG_TYPE2                  1212
#define IDC_R_OVUL_STAT2                      1212
#define IDC_E_HOR_MED_DATE2                   1213
#define IDC_E_PEL_SUR_DATE3                   1213
#define IDC_R_OVUL_STAT3                      1213
#define IDC_E_HOR_MED_PURP2                   1214
#define IDC_E_PEL_SURG_TYPE3                  1214
#define IDC_EST_OTHER_SPECIFY                 1214
#define IDC_C_HOR_MED                1215
#define IDC_E_PEL_SURG_DATE4         1215
#define IDC_E_ADH-OTHER_SPECIFY      1215
#define IDC_E_HOR_MED_DOSE3          1216
#define IDC_E_PEL_SURG_TYPE4         1216
#define IDC_C_MENST_HORM_INDUCED     1216
#define IDC_E_HOR_MED_DATE3          1217
#define IDC_E_TYP_CYC_LEN            1217
#define IDC_E_HOR_MED_PURP3          1218
#define IDC_E_TYP_PERIOD_LEN         1218
#define IDC_C_HOR_MED4               1219
#define IDC_E_FREQUENCY              1219
#define IDC_E_HOR_MED_DOSE4          1220
#define IDC_E_OTH_SURG_PROC_SPECIFY  1220
#define IDC_E_HOR_MED_DATE4          1221
#define IDC_E_OTHER_GYN_SPECIFY      1221
#define IDC_E_HOR_MED_PURP4          1222
#define IDC_CONFIRMED_BY_LAPAROSCOPY          1222
#define IDC_C_CONFIRMED_BY_LAPAROTOMY         1223
#define IDC_CONFIRMED_BY_BIOPSY      1224
#define IDC_E_LAPAROSCOPY_DATE       1225
#define IDC_E_LAPAROTOMY_DATE 1226
#define IDC_E_BIOPSY_DATE            1227
#define IDC_E_RECORD_COUNT           1230
#define IDC_R_HORMONE_INDUCED        1232
#define IDC_R_HORMONE_INDUCED2       1233
#define IDC_EO_WHITE                 1247
#define IDC_EO_BLACK                 1248
#define IDC_EO_ASIAN                 1249
```

```
#define IDC_EO_HISPANIC              1250
#define IDC_EO_NATIVE_AMERICAN       1251
#define IDC_EO_OTHER                 1252
#define IDC_MS_MARRIED               1253
#define IDC_MS_SINGLE                1254
#define IDC_MS_WIDOWED               1255
#define IDC_MS_LWP                   1256
#define IDC_MS_OTHER                 1257
#define IDC_ACOG_Y                   1258
#define IDC_ACOG_N                   1259
#define IDC_MS_DIVORCED              1260
#define IDC_ANTIBIOTICS              1261
#define IDC_FFN_POS                  1262
#define IDC_CORTICOSTEROIDS          1263
#define IDC_TOCOLYTICS               1264
#define IDC_INSULIN                  1265
#define IDC_ANTIHYPER                1266
#define IDC_FFN_NEG                  1267
#define IDC_MED_NONE                 1268
#define IDC_MED_UKN                  1269
#define IDC_PATENT_COMP_1            1270
#define IDC_PATIENT_COMP_3           1271
#define IDC_PC1_LT1                  1272
#define IDC_PC1_1_3                  1273
*define IDC_PC1_4_6                  1274
#define IDC_PATENT_COMP_2            1275
#define IDC_VAGINAL_BLEEEING         1276
#define IDC_VB_TRAC                  1277
#define IDC_VB_MED                   1278
#define IDC_VB_GROSS                 1279
#define IDC_PATIENT_COMP_6           1280
#define IDC_PATIENT_COMP_5           1281
#define IDC_PATIENT_COMP_4           1282
#define IDC_EGA_BY_SONO              1283
#define IDC_EGA_BY_LMP               1284
#define IDC_EGA_AT_SAMP              1285
#define IDC_DILITATION_LT1           1286
#define IDC_DILITATION_1             1287
#define IDC_DILITATION_1_2           1288
#define IDC_DILITATION_2             1289
#define IDC_DILITATION_2_3           1290
#define IDC_DILITATION_3             1291
#define IDC_DILITATION_GT3           1292
#define IDC_CERV_FIRM                1293
#define IDC_CERV_MOD                 1294
#define IDC_CERV_SOFT                1295
#define IDC_1_CORP                   1298
#define IDC_2_COMP                   1299
#define IDC_3_COMP                   1300
#define IDC_4_COMP                   1301
#define IDC_5_COMP                   1302
#define IDC_6_COMP                   1303
#define IDC_MULT_GEST                1304
#define IDC_UT_CWRV_ABNORM           1305
#define IDC_CERV_CERCLAGE            1306
#define IDC_GEST_DIABETES            1307
#define IDC_HYPERTEN_DISORDERS       1308
#define IDC_MG_TWINS                 1309
#define IDC_MG_TRIPLETS              1310
#define IDC_MG_QUADS                 1311
#define IDC_NAME_L                   1313
```

```
#define IDC_NAME_F                      1314
#define IDC_NAME_MI                     1315
#define IDC_DATE_OF_BIRTH               1316
#define IDC_LAB_ID                      1317
#define IDC_DILATATION_UKN              1318
#define IDC_GRAVIDITY                   1319
#define IDC_PARITY                      1320
#define IDC_ABORTIONS                   1321
#define IDC_PC1_7_9                     1322
#define IDC_PC1_10_12                   1323
#define IDC_PC1_GT12                    1324
#define IDC_2_CUMP_1                    1325
#define IDC_2_COMP_2                    1326
#define IDC_2_COMP_3                    1327
#define IDC_R_GOTO_SEL1                 1329
#define IDC_R_GOTO_SEL2                 1330
#define IDC_E_GOTO_REC_NUM              1331
#define IDC_E_GOTO_ID_NUM               1332
#define IDD_DATA_NEW                    32771
#define ID_DATA_NEW                     32772
#define ID_DATA_EDIT                    32773
#define ID_REC_FIRST                    32774
#define ID_REC_NEXT                     32775
#define ID_REC_PREV                     32776
#define ID_REC_LAST                     32777
#define ID_BLD_NET_FILE                 32778
#define ID_EDIT_MODE                    32779
#define ID_CLR_SUBFIELDS                32780
#define ID_REC_GOTO                     32781

//  Next default values for new objects
//
#ifdef APSTUDIO_INVOKED
#ifndef APSTUDIO_READONLY_SYMBOLS

#define   APS_NEXT_RESOURCE_VALUE   142
#define   APS_NEXT_COMMAND_VALUE    32782
#define   APS_NEXT_CONTROL_VALUE    1333
#define   APS_NEXT_SYMED_VALUE              101
#endif
#endif


//Microsoft App Studio generated resource script.
//
#include "resource.h"

#define APSTUDIO_READONLY_SYMBOLS
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//
//  Generated from the TEXTINCLUDE 2 resource.
//
#include "afxres.h"
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//
#undef APSTUDIO_READONLY_SYMBOLS
#ifdef APSTUDIO_INVOKED
```

```
//////////////////////////////////////////////////////////////////////////////
//////////////////////////////////////////////////////////////////////////////
//
// TEXTINCLUDE
//

1 TEXTINCLUDE DISCARDABLE
BEGIN
      "resource.h\0"
END

2 TEXTINCLUDE DISCARDABLE
BEGIN
      "#include "'afxres.h"'\r\n"
      "\0"
END
3 TEXTINCLUDE DISCARDABLE
BEGIN
      #include ""res\\PTDinp.rc2""  //  non-App Studio edited
resources\r\n"
      "\r\n"
      "#include "'afxres.rc""  \011// Standard components \r\n"
      "#include "'afxprint.rc""  \011// printing/print preview
resources\r\n"
      "#include ""afxdb.rc""\011\011// Database resources\r\n"
      "\0"
END
//////////////////////////////////////////////////////////////////////////////
//////////////////////////////////////////////////////////////////////////////
#endif      //APSTUDIO_INVOKED

//////////////////////////////////////////////////////////////////////////////
//////////////////////////////////////////////////////////////////////////////
//
// Icon
//
IDR_MAINFRAME     ICON         DISCARDABLE "RES\\PTDINP.ICO"

//////////////////////////////////////////////////////////////////////////////
//////////////////////////////////////////////////////////////////////////////
//
// Bitmap
//

IDR_MAINFRAME     BITMAP             MOVEABLE PURE     "RES\\TOOLBAR.BMP11
IDB_BITMAP1       BITMAP             DISCARDABLE
"RES\\BITMA.Pl.BMP"

//////////////////////////////////////////////////////////////////////////////
//////////////////////////////////////////////////////////////////////////////
//
// Menu
//
IDR_MAINFRAME MENU PRELOAD DISCARDABLE

BEGIN
      POPUP "&File"
      BEGIN
            MENUITEM " &Open...\tCtrl+O",       ID_FILE_OPEN
            MENUITEM SEPARATOR
            MENUITEM "&Print",                        ID_FILE_PRINT
```

```
            MENUITEM "Print &Setup".                    ID_FILE_PRINT_SETUP
            MENUITEM "Print Preview",                   ID_FILE_PRINT_PREVIEW
            MENUITEM SEPARATOR
            MENUITEM "File1",                       ID_FILE_MRU_FILE1, GRAYED
            MENUITEM "File2",                       ID_FILE_MRU_FILE2, GRAYED
            MENUITEM "File3",                       ID_FILE_MRU_FILE3, GRAYED
            MENUITEM "File4",                       ID_FILE_MRU_FILE4, GRAYED
            MENUITEM SEPARATOR
            MENUITEM "E&xit",                       ID_APP_EXIT
END
POPUP "&Record"
BEGIN
            MENUITEM %First Record",                    ID_REC_FIRST
            MENUITEM "&Prev Record",                    ID_REC_PREV
            MENUITEM %Next Record",                 ID_REC_NEXT
            MENUITEM %Last Record",                 ID_REC_LAST
            MENUITEM SEPARATOR
            MENUITEM %Go to Record",                    ID_REC_GOTO
            MENUITEM SEPARATOR
            MENUITEM %Edit Record",                 ID_DATA_EDIT
            MENUITEM %New Record",                  ID_DATA_NEW
            MENUITEM SEPARATOR
            MENUITEM "Neural &Data",                    ID_BLD_NET_FILE
END
POPUP %Options"
BEGIN
            MENUITEM %Print Full Form",                 ID_EDIT_MODE
            MENUITEM %Clear Subfields",                 ID_CLR_SUBFIELDS
END
POPUP %View"
BEGIN
            MENUITEM %Toolbar".                         ID_VIEW_TOOLBAR
            MENUITEM %Status Bar",                  ID_VIEW_STATUS_BAR
END
POPUP %Help"
BEGIN
            MENUITEM %About PTDinp          ",      ID_APP_ABOUT

      END
END

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//
// Accelerator
//
IDR_MAINFRAME ACCELERATORS PRELOAD MOVEABLE PURE
BEGIN
      "N"               ID_FILE_NEW,            VIRTKEY,CONTROL
      "O"               ID_FILE_OPEN,           VIRTKEY,CONTROL
      "S"               ID_FILE_SAVE,           VIRTKEY,CONTROL
      "P"               ID_FILE_PRINT,          VIRTKEY,CONTROL
      "Z"               ID_EDIT_UNDO,           VIRTKEY,CONTROL
      "X",              ID_EDIT_CUT,            VIRTKEY,CONTROL
      "C"               ID_EDIT_COPY            VIRTKEY,CONTROL
      "V"               ID_EDIT_PASTE,          VIRTKEY,CONTROL
      VK_BACK,          ID_EDIT_UNDO,           VIRTKEY,ALT
      VK_DELETE,  ID_EDIT_CUT,              VIRTKEY,SHIFT
      VK_INSERT,  ID_EDIT_COPY,             VIRTKEY,CONTROL
      VK_INSERT,  ID_EDIT_PASTE,            VIRTKEY,SHIFT
      Vl_F6             ID_NEXT_PANE,           VIRTKEY
```

```
      VK_F6,              ID_PREV_PANE,           VIRTKEY,SHIFT
END

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//
//Dialog
//

IDD_ABOUTBOX DIALOG DISCARDABLE 34, 22, 217, 55
STYLE DS_MODALFRAME I  |  WS_POPUP  |  WS_CAPTION  |  I WS_SYSMENU
CAPTION 7About PTDinp"
FONT 8, "MS Sans Serif"
BEGIN
      ICON                    IDR_MAINFRAME, IDC_S TAT IC, 11, 17, 18, 2 0
      LTEXT             "Pre Term Delivery Application Version 1. 0",
IDC_STATIC,
                              40,10,139,8
      LTEXT             "Copyright \251 1997 ",IDC_STATIC, 40,25,119,8
      DEFPUSHBUTTON     "OK", IDOK, 175, 32, 32, 14,WS_GROUP
END

IDD_D PTD_INP DIALOG DISCARDABLE 0, 0, 399, 447
STYLE-DS_RODALFRAME  |  WS_POPUP  |  WS_VISIBLE  |  WS_CAPTION  |
WS_SYSMENU
CAPTION "Pre-Term Delivery Risk Assessment Software: Data Entry Screen"
FONT 8, "MS Sans Serif"
BEGIN
      EDITTEXT                      IDC_LAB_ID,305,8,68,12,ES_AUTOHSCROLL
      EDITTEXT                      IDC_NAME_L, 4 6, 4 8, 5 0, 13,
ES_AUTOHSCROLL
      EDITTEXT                      IDC_NAME_F, 117, 4 8, 4 0, 13,
ES_AUTOHSCROLL
      EDITTEXT                      IDC_NAME_MI,170,48,12,13,ES_AUTOHSCROLL
      EDITTEXT                      IDC_DATE_OF_BIRTH, 28, 66, 59, 12,
                                    ES_AUTOHSCROLL
      CONTROL                       "Caucasian", IDC_EO_WHITE, "Button"
BS_AUTOCHECKBOX |
                                    WS_TABSTOP,242, 48,45, 10
      CONTROL                       "African American", IDC_EO_BLACK,
"Button", BS_AUTOCHECKBOX |
                                    WS_TABSTOP,292,48,66,1
      CONTROL                       "Asian", IDC_EO_ASIAN, "Button",
BS_AUTOCHECKBOX |
                                    WS_TABSTOP, 362, 48,29,10
      CONTROL                       "Hispanic", IDC_EO_HISPANIC,
"Button",BS_AUTOCHECKBOX |
                                    WS_TABSTOP,242,59,40,10
      CONTROL                       "Native American", IDC_EO_NATIVE_AMER I
CAN, "Button",
BS_AUTOCHECKBOX |
                                    WS_TABSTOP,292,59,65,10
      CONTROL     "                 "Other ", IDC_EO_OTHER," Button",
BS_AUTOCHECKBOX |
                                    WS_TABSTOP,362,59,29,10
      CONTROL                       "Married",IDC_MS_MARRIED, "Button",
BS_AUTOCHECKBOX |
                                    WS_TABSTOP,242, 72,36,10
      CONTROL                       "Single",IDC_I_MS_SINGLE, "Button",
BS_AUTOCHECKBOX |
                                    WS_TABSTOP,262,72,34,10
```

```
      CONTROL
"Divorced/Separated",IDC_MS_DIVORCED,"Button",
BS_AUTOCHECKBOX  |  WS_TABSTOP, 316,72,77,10
      CONTROL                          "Widowed ",IDC_MS_WIDOWED, "Button",
BS_AUTOCHECKBOX |
                                       WS_TABSTOP,242,83,41, 10
      CONTROL                          "Living with partner", IDC_MS_LWP,
"Button",
BS_AUTOCHECKBOX  |  WS_TABSTOP,287,83,73,10
      CONTROL                          "Other", IDC_MS_OTHER,
"Button",BS_AUTOCHECKBOX |
                                       WS_TABSTOP,562,83,29,10
      CONTROL                          "Yes", IDC_ACOG_Y, "Button",
BS_AUTOCHECKBOX  | WS_TABSTOP, 333,119,24,10 -
      CONTROL                          "No",IDC_ACOG_N, "Button",
BS_AUTOCHECKBOX | WS_TABSTOP, 364, 119, 21, 10
      CONTROL                          "Uterine contractions with or without
pain",
                                       IDC_PATIENT_COMP_1, "Button",
BS_AUTOCHECKBOX  |  WS_TABSTOP, 13, 145, 143, 10              -
      CONTROL                          " <1", IDC_PC1_LT1, "Button",
BS_AUTOCHECKBOX  | WS_TABSTOP, 67,158,20,10
      CONTROL                          "1-3",IDC_PC1_1_3, "Button",
BS_AUTOCHECKBOX  | WS_TABSTOP, 99,158,22,10
      CONTROL                          "4-6", IDC_PC1_4_6, "Button",
BS_AUTOCHECKBOX  | WS_TABSTOP, 131,158,22,10
      CONTROL
"7-9",IDC_PC1_7_9,"Button",BS_AUTOCHECKBOX  | WS_TABSTOP, 67,170,22 10
      CONTROL                          "10-12"Button",BS_AUTOCHECKBOX |
WS_TABSTOP,99,170,30,10
      CONTROL                          ">12",IDC_PC1_GT12, "Button",
BS_AUTOCHECKBOX | WS_TABSTOP, 131, 170, 24, 10
      CONTROL                          "Vaginal bleeding",
IDC_VAGINAL_BLEEDING,"Button",
BS_AUTOCHECKBOX | WS_TABSTOP,13,181,65,10
      CONTROL                          "Trace",IDC_VB_TRACE,"Button",
BS_AUTOCHECKBOX |
WS_TABSTOP, 23,194,30,10
      CONTROL                          "Med",
IDC_VB_MED,"Button",BS_AUTOCHECKBOX | WS_TABSTOP, 58,194,25,10
      CONTROL
"Gross",IDC_VB_GROSS,"Button",BS_AUTOCHECKBOX | WS_TABSTOP 88,194,30,10
      CONTROL                          "Patient is not ""feeling
right""",IDC_PATIENT_COMP_6,
"Button",BS_AUTOCHECKBOX | WS_TABSTOP, 13, 205, 102, 10
      CONTROL                          "Bleeding during the second or third
trimester",
                                       IDC_PATIENT_COMP_3,
Button",BS_AUTOCHECKBOX | WS_TABSTOP, 161 145,155 10
      CONTROL                          "Intermittent lower abdominal pain,
dull, low backpain, pelvic press ure",

IDC_PATIENT_COMP_2,"Button",BS_AUTOCHECKBOX | WS_TABSTOP, 161,157,233,10
      CONTROL                          "Change in vaginal discharge - -
amount, color, or consistency",
                                       IDC_PATIENT_COMP_5,"Button",
BS_AUTOCHECKBOX | WS_TABSTOP, 161 181,208 10
      CONTROL                          "Menstrual - like cramping (with or
without diarrhea)",
                                       IDC_PATIENT_COMP_4,"Button",
BS_AUTOCHECKBOX | WS_TABSTOP, 161 193,171 10
```

```
EDITTEXT                                IDC_EGA_BY_SONO, 155,224,37,12,
ES_AUTOHSCROLL
EDITTEXT                                IDC_EGA_BY_LMP,
245,224,37,12,ES_AUTOHSCROLL
EDITTEXT                                IDC_EG_AT_SAMP,
350,224,37,12,ES_AUTOHSCROLL
      CONTROL                           "Previous pregnancy, no
complications",IDC_1_COMP,
"Button", BS_AUTOCHECKBOX | WS_TABSTOP,13, 260, 134,10
      CONTROL                           "History of Preterm
delivery",IDC_2_COMP,"Button",
BS_AUTOCHECKBOX | WS_TABSTOP, 13, 272, 134, 10
      CONTROL                           "1",
IDC_2_COMP_1,"Button",BS_AUTOCHECKBOX | WS_TABSTOP, 91, 284, 19, 10 -
      CONTROL                           "1", IDC_2_COMP_2,"Button",
BS_AUTOCHECKBOX | WS_TABSTOP, 116, 284 19,10
      CONTROL                           ">2", IDC_2_COMP_3,"Button",
BS_AUTOCHECKBOX | WS_TABSTOP, 141,284, 21, 10 -
      CONTROL                           "History of Preterm
PROM",IDC_3_COMP,"Button",
BS_AUTOCHECKBOX | WS_TABSTOP, 13, 296, 92, 10
      CONTROL                           "History of incompetent cervix",
IDC_4_COMP,"Button",
BS_AUTOCHECKBOX | WS_TABSTOP,13, 308, 106,10
      CONTROL                           "HIstory of PIH/preeclampsia",
IDC_5_COMP,"Button",
BS_AUTOCHECKBOX | WS_TABSTOP,13 , 320, 102, 10
      CONTROL                           "History of SAB prior to 20 wks",
IDC_6_COMP,"Button",
BS_AUTOCHECKBOX  |  WS_TABSTOP,13,332, 109, 10
EDITTEXT                                IDE_GRAVIDITY, 277, 246,20, 12,
ES_AUTOHSCROLL
EDITTEXT                                IDC_PARITY, 317, 246, 20, 12
ES_AUTOHSCROLL
EDITTEXT                                IDC_ABORTIONS, 357, 246, 20, 12,
ES_AUTCHSCROLL
      CONTROL                           "Multiple
Gestation:",IDC_MULT_GEST,"Button",
BS_AUTOCHECKBOX | WS_TABSTOP, 23, 272, 72, 10
      CONTROL                           "Twins", IDC_MG_TWINS, "Button",
BS_AUTOCHECKBOX  |  WS_TABSTOP, 278, 272,30,10
      CONTROL                           "Triplets", IDC_MG_TRIPLETS, "Button",
BS_AUTOCHECKBOX  |  WS_TABSTOP, 311, 272, 36, 10
      CONTROL                           "Quads", IDC_MG_QUADS, "Button",
BS_AUTOCHECKBOX  |  WS_TABSTOP,550, 272, 32, 10
      CONTROL                           "Uterine or cervical abnormality",
IDC_UT_CWRV_ABNORM, "Button", BS_AUTOCHECKBOX  |  WS_TABSTOP, 203,
284,110,10
      CONTROL                           "Cerclage", TDC_CERV_CERCLAGE,
"Button", BS_AUTOCHECKBOX  |  WS_TABSTOP,203, 296, 40, 10
      CONTROL                           "Gestational
Diabetes",IDC_GEST_DIABETES, "Button",
BS_AUTOCHECKBOX  |  WS_TABSTOP, 203, 308, 79, 10
      CONTROL                           "Hypertensive Disorders",
IDC_HYPERTEN_DISORDERS, "Button", BS_AUTOCHECKBOX  |  WS_TABSTOP, 203, 320,
86, 10
      CONTROL                           "1", IDC_DILITATION_LT1, "Button",
BS_AUTOCHECKBOX  |  WS_TABSTOP, 58, 364, 22, 10
      CONTROL                           "1", IDC_DILITATION_1, "Button",
BS_AUTOCHECKBOX  |  WS_TABSTOP, 81, 364, 24, 10
```

```
      CONTROL                          "1-2", IDC_DILITATION_1_2,"Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP 101, 364, 24, 10
      CONTROL                          "2", IDC_DILITATION_2, Button",
BS_AUTOCHECKBOX   | WS_TABSTOP, 127, 364, 18, 10
      CONTROL                          "2-3", IDC_DILITATION_2_3, "Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP 147, 364, 24,10
      CONTROL                          "3", IDC_DILITATION_3, "Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP, 173, 364, 18, 10
      CONTROL                          ->3 ", IDC_DILITATION_GT3, "Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP, 193, 364, 22, 10
      CONTROL                          "Unk. ",IDC_DILITATION_UKU, "Button",
BS_AUTOCHECKBOX   |  WS TABSTOP, 217, 364, 29, 10
      CONTROL                          Firm", IDC_CERV_FIRM, "Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP, 318, 564, 25, 10
      CONTROL                          "Mod" IDC_CERV_MOD, "Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP, 344, 364, 25, 10 -
      CONTROL                          "Soft", IDC_CERV_SOFT, "Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP,370, 64, 25, 10
      CONTROL                          "Antibiotics",IDC_ANTIBIOTICS,"Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP, 17, 392, 45, 10
      CONTROL                          "Corticosteroids", IDC_CORTICOSTEROIDS,
"Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP, 70, 392, 60, 10
      CONTROL                          "Tocolytis", IDC_TOCOLYTICS, "Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP, 138, 592, 41, 10
      CONTROL                          "Insulin", IDC_INSULIN,"Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP,187,392,33,10
      CONTROL                          "Antihypertensive ", IDC_ANTIHYPER,
"Button",
BS_AUTOCHECKBOX   |  WS_TAESTOP, 228, 392, 69, 10
      CONTROL                          "None", IDC_MED_NONE, "Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP,305,392,29,10
      CONTROL                          "Unknown", IDC_MED_UKN, "Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP, 342, 392, 42, 10
      CONTROL                          "Positive", IDC_FFN_POS, "Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP,138,411,37,10
      CONTROL                          "Negative", IDC_FFN_NEG, "Button",
BS_AUTOCHECKBOX   |  WS_TABSTOP,228,411,41,10
      DEFPUSHBUTTON                    "Calculate Risk", IDOK,270,429, 62, 14
      PUSHBUTTON                       "Cancel". IDCANCEL, 340,429, 53,14
      LTEXT                            "Cervical consistancy", IDC_STATIC,
249, 365, 68, 8
      LTEXT                            "M", IDC_STATIC, 160,51,7,8
      LTEXT                            "Lab  ID #:11,IDC_STATIC, 267, 10, 34,
8
      LTEXT                            "PATIENT INFORMATION", IDC_STATIC, 159,
29, 83, 8
      LTEXT                            "Name (last) ", IDC_STATIC, 7, 51, 36,
8
      LTEXT                            "First", IDC_STATIC,.99, 51, 15, 8
      GROUPBOX                               "", IDC_STATIC,1,40,187,56
      GROUPBOX                               "",IDC_STATIC,187,40,210,56
      LTEXT                            "Ethnic origin: ", IDC_STATIC, 192, 48,
44, 8
      LTEXT                            "Marital
status:",IDE_STATIC,192,72,47,8
      LTEXT                            "DOB", IDC_STATIC, 7, 69, 16, 8
      LTEXT                            "PATIENT HISTORY AND CLINICAL
INFORMATION", IDC_STATIC, 117, 102, 168, 8
      GROUPBOX                               "",IDC_STATIC,1,112,396,107
```

```
      LTEXT                              "At the time of sampling was the
patient experiencing signs and sysptoms of possible preterm labor?",
                                         IDC_STATIC,7,119,321,8
      LTEXT                              "If yes, please mark all that apply.
IDC_STATIC, 7, 134,109, 8
      GROUPBOX     -                           ",IDC_STATIC,1,373,396,32
      LTEXT                              "Qualitative fFN Elisa Test Results:
IDC_STATIC, 7, 411,118, 8
      GROUPBOX                                 IDC_STATIC, 1, 402,396,24
      LTEXT                              "Medications at Time of Test (check all
that apply) ",
                                               IDC_STATIC,7,380,163,8
      LTEXT                              "Number/hr", IDC_STATIC,22,158,36,8
      GROUPBOX     -                           " ",IDC_STATIC,1,216,396,25
      LTEXT                              "Gestational Age: EGA by first
trimester sono",
                                         IDC_STATIC,7,225,143,8
      LTEXT                              "EGA by LMP", IDC_STATIC, 197, 225, 42,
8
      LTEXT                              "EGA at sampling",
IDC_STATIC,287,225,55,8
      GROUPBOX     -                           " ",IDC_STATIC,1,346,396,30
      LTEXT                              "Cervical Status immediately following
sample collection:",
                                         IDC_STATIC,7,352,182,8
      LTEXT                              "Dilatation (cm)", IDC_STATIC,
9,364,48,8
      GROUPBOX                                 " ",IDC_STATIC, 1, 238,187, 111
      GROUPBOX                                 " ",IDC_STATIC,187,238,210,111
      CONTROL                                  "Previous Pregnancy: Please mark
all that apply.",
                                         IDC_STATIC,"Static",SS_LEFTNOWORDWRAP
|  WS_GROUP,7,249,159,8
      LTEXT                              "Current Pregnancy:
G:",IDC_STATIC,195,249,76,8
      GROUPBOX                                 " ",IDC_STATIC,1,93,396,22
      GROUPBOX                                 " ",IDC_STATIC,1,1,396,22
      GROUPBOX                                 " ",IDC_STATIC,1,20,396,23
      LTEXT                              "P: ",  IDC_STATIC,303,249,8,8
      LTEXT                              "A: ", IDC_STATIC,343,249,8,8
      LTEXT                              "If Yes, how many?", IDC_STATIC, 22,
284, 61, 8
END

IDD_D_GOTO DIALOG DISCARDABLE 0, 0, 163, 95
STYLE DS_MODALFRAME  |  WS_POPUP  |  WS_VISIBLE  |  WS_CAPTION  |
WS_SYSMENU CAPTION  "Go To Record ... "
FONT 8, "MS Sans Serif"
BEGIN
      CONTROL                                  "Record Number", IDC_R_GOTO SEL1,
"Button",
BS_AUTORADIOBUTTON  |  WS_GROUP, 10, 16, 62, 10
      CONTROL                                  "ID Number", IDC_R_GOTO_SEL2,
"Button", BS_AUTORADIOBUTTON,10,40,46,10
      EDITTEXT                                 IDC_E_GOTO_REC_NUM,
90,12,60,12,ES_AUTOHSCROLL
      EDITTEXT                                 IDC_E_GOTO_ID_RUM, 90, 36, 60,
12, ES_AUTOHSCROLL
      DEFPUSHBUTTON                      "Ok", IDOK,, 76, 50, 14
      PUSHBUTTON                         "Cancel", IDCANCEL, 100, 76, 50, 14
END
```

```
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//
//  String Table
//
STRINGTABLE PRELOAD DISCARDABLE
BEGIN
      IDR_MAINFRAME                  "PTDinp Windows
Application\nPTDin\nPTDin Docuent\n\n\nPTDin. Document\ nPTDin Document"
END

STRINGTABLE PRELOAD DISCARDABLE
BEGIN
      AFX_IDS_APP_TITLE              "PTDinp Windows Application"
      AFX_IDS_IDLEMESSAGE            "Ready"
END

STRINGTABLE DISCARDABLE
BEGIN
      ID_INDICATOR_EXT               "EXT"
      ID_INDICATOR_CAPS              "CAP"
      ID_INDICATOR_NUM               "NUM"
      ID_INDICATOR_SCRL              "SCRL"
      ID_INDICATOR_OVR               "OVR"
      ID_INDICATOR_REC               "REC"
END

STRINGTABLE DISCARDABLE
BEGIN
      ID_FILE_NEW                    "Create a new document"
      ID_FILE_OPEN                         "Open an existing document"
      ID_FILE_CLOSE                        "Close the active document"
      ID_FILE_SAVE                         "Save the active document"
      ID_FILE_SAVE_AS                "Save the active document with a new
name"
      ID_FILE_PAGE_SETUP                   "Change the printing options"
      ID_FILE_PRINT_SETUP                  "Change the printer and printing
options"
      ID_FILE_PRINT                        "Print the active document"
      ID_FILE_PRINT_PREVIEW          "Display full pages"
END

STRINGTABLE DISCARDABLE
BEGIN
      ID_APP_ABOUT                         "Display program information,
version number and copyright"
      ID_APP_EXIT                    "Quit the application; prompts to save
documents"
END

STRINGTABLE DISCARDABLE
BEGIN
      ID_FILE_MRU_FILEI              "Open this document"
      ID_FILE_MRU_FILE2              "Open this document"
      ID_FILE_MRU_FILE3              "Open this document"
      ID_FILE_MRU7_FILE4                   "Open this document"
END

STRINGTABLE DISCARDABLE
BEGIN
      ID_NEXT_PANE                         "Switch to the next window pane"
```

```
      ID_PREV_PANE                    "Switch back to the previous
window pane"
END

STRINGTABLE DISCARDABLE
BEGIN
      ID_EDIT_CLEAR                   "Erase the selection"
      ID_EDIT_CLEAR_ALL               "Erase everything"
      ID_EDIT_COPY                    "Copy the selection and put it on
the Clipboard"
      ID_EDIT_CUT                     "Cut the selection and put it on the
Clipboard"
      ID_EDIT_FIND                    "Find the specified text"
      ID_EDIT_PASTE                   "Insert Clipboard contents"
      ID_EDIT_REPEAT                  "Repeat the last action"
      ID_EDIT_REPLACE                 "Replace specific text with different
text"
      ID_EDIT_SELECT_ALL              "Select the entire document?l
      ID_EDIT_UNDO                    "Undo the last action"
      ID_EDIT_REDO                    "Redo the previously undone
action"
END

STRINGTABLE DISCARDABLE
BEGIN
      ID_VIEW_TOOLBAR                 "Show or hide the toolbar"
      ID_VIEW_STATUS_BAR              "Show or hide the status bar"
END

STRINGTABLE DISCARDABLE
BEGIN
      AFX_IDS_SCSIZE                  "Change the window size"
      AFX_IDS_SCMOVE                  "Change the window position"
      AFX_IDS_SCMINIMIZE              "Reduce the window to an icon"
      AFX_IDS_SCMAXIMIZE              "Enlarge the window to full size"
      AFX_IDS_SCNEXTWINDOW            "Switch to the next document window"
      AFX_IDS_SCPREVWINDOW            "Switch to the previous document
window"
      AFX_IDS_SCCLOSE                 "Close the active window and prompts to
save the documents"
END

STRINGTABLE DISCARDABLE
BEGIN
      AFX_IDS_SCRESTORE               "Restore the window to normal size"
      AFX_IDS_SCTASKLIST              "Activate-Task List"
END

STRINGTABLE DISCARDABLE
BEGIN
      IDD_DATA_NEW                    "Starts data entry process for
new record"
      ID_DATA_NEW                     "Create new record at end of file and
edit."
      ID_DATA_EDIT                    "Edit the cturrently selected
record."
      ID_REC_TIRST                    "Go to the first record in the
file."
      ID_REC_NEXT                     "Go to the next record in the file."
      ID_REC_PREV                     "Go to the previous record in the
file."
```

```
    ID_REC_LAST                     "Go to the last record in the file."
    ID_BID_NET_FILE                 "Build file of neural data from
currently opened database."
    ID_EDIT_MODE                        "Print the full data form when
checked or results only when unchecked."
    ID_CLR_SUBFIELDS                "Clear subfields when item cleared."
    ID_REC_GOTO                     "Go to a specific record number or
specific ID."
END


#ifndef APSTUDIO_INVOKED
////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
//
//  Generated from the TEXTINCLUDE 3 resource.
//
#include "res\PTDinp.rc2" // non-App Studio edited resources

#include "afxres.rc"          //  Standard components
#include "afxprint.rc"  //  printing/print preview resources
#include "afxdb.rc"           //  Database resources

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
#endif            //  not APSTUDIO_INVOKED


# Microsoft Visual C++ generated build script   -   Do not modify

PROJ = PTDINP
DEBUG = 0
PROGTYPE = 0
CALLER =
ARGS =
DLLS =
D_RCDEFINES = /d_DEBUG
R_RCDEFINES = /dnDEBUG
ORIGIN = MSVC
ORIGIN_VER = 1.00
PROJPATH = C:\DDD\AD97-1\PTDINP\
USEMFC = 0
CC = cl
CPP = cl
CXX = cl
CCREATEPCHFIAG =
CPPCREATEPCHFLAG = /YcSTDAFX.H
CUSEPCHFLAG =
CPPUSEPCHFLAG = /YuSTDAFX.H
FIRSTC  =
FIRSTCPP = STDAFX.CPP
RC = rc
CFLAGS_D = WEXE = nologo /G2 /W3 /V /AL /Od /D "_AFXDLL" /D "_DEBUG" /FR
/GA /GEf
CFLAGS_R = WEXE = /nologo /Gs /G3 /W3 /AL /01 /D "RDEBUG" /D_AFXDLL" /FR
/GA /GEf
LFLAGS_D = WEXE = NOLOGO /NOD /PACKC:61440 /STACK:10240 /ALIGN:16 /ONERROR:
NOEXE/ CO
LIBS_D_WRXE = mfc250d oldnames libw llibcew mfcd250d commdlg.lib shell.lib,
LIBS_R_WEXE = mfc250 oldnames libw llibcew mfcd250 odbc commdlg.lib
shell.lib
```

```
RCFLAGS = /nologo /z
RCFLAGS = /nologo /t /k
RUNFLAGS =
DEFFILE = PTDINP.DEF
OBJS_EXT =
LIBS_EXT = EVA.LNET_LIB TKSDLL.LIB
!if "$(DEBUG) " = = "1"
CFLAGS = $(CFLAGS_D_WEXE)
LFLAGS = $(LFLAGS_D_WEXE)
LIBS = $(LIBS_D_WIXE)
MAPFILE = nul
RCDEFINES = $ (D_RCDEFINES)
!else
CFLAGS = $(CFLAGS_R_WEXE)
LFLAGS = $(LFLAGS_R_WEXE)
LIBS = $(LIBS_R_WEXE)
MAPFILE = nul
RCDEFINES = $(R_RCDEFINES)
!endif
!if (if exist MSVC.BND del MSVC.BND]
!endif
SBRS =       STDAFX.SBR \
             PTDINP.SBR \
             MAINFRM.SBR \
             PTDIDOC.SBR \
             PTDIVW.SBR \
             PTDDLG1.SBR \
             PTDGOTO.SBR

EVA_LNET_DEP =

TKSDLL_DEP =

PTDINP_RCDEP      = c:\ddd\ad97-1\ptdinp\res\ptdinp.ico
      c:\ddd\ad97-1\ptdinp\res\ptdinp.rc2
STDAFX_DEP = c:\ddd\ad97-1\ptdinp\stdafx.h


PTDINP_DEP = c:\ddd\ad97-1\ptdinp\stdafx.h
      c:7ddd\ad97-1\ptdinp\ptdinp.h
      c:\ddd\ad97-1\ptdinp\ptdidoc.h
      c:\ddd\ad97-1\ptdinp\mainfrm.h
      c:\ddd\ad97-1\ptdinp\ptdivw.h

MAINFM_EP = c:\ddd\ad97-1\ptdinp\stdafx.h
      c:\3dd\ad97-1\ptdinp\ptdinp.h
      c:\ddd\ad97-1\ptdinp\ptdidoc.h
      c:\ddd\Ad97-1\ptdinp\mainfrm.h

PTDIDOC_EP - c:\ddd\ad97-1\ptdinp\stdafx.h
      c:\3dd\ad97-1\ptdinp\ptdinp.h
      c:\ddd\ad97-1\ptdinp\ptdidoc.h
      c:\ddd\ad97-1\ptdinp\aa_nets.h

PTDIVW_EP = c:\ddd\ad97-1\ptdinp\stdafx.h
      c:7ddd\ad97-1\ptdinp\ptdinp.h \
      c:\ddd\ad97-1\ptdinp\ptdidoc.h
      c:\ddd\ad97-1\ptdinp\ptdivw.h \
      c:\ddd\ad97-1\ptdinp\ptddlgl.h

PTDDLGl_EP = c:\ddd\ad97-1\ptdinp\stdafx.h
```

```
      c:\add\ad97-1\ptdinp\ptdinp.h
      c:\ddd\ad97-1\ptdinp\ptdidoc.h
      c:\ddd\ad97-1\ptdinp\ptddlgl.h

all:  $(PROJ).EXE $(PRCJ).BSC

PTDINP.RES: PTDINP.RC $(PTDINP_RCDEP)
      $(RC) $(RCFLAGS) $(RCDEFINES) -r PTDINP.RC

STDAFX.OBJ: STDAFX.CPP $(STDAFX_DEP)
      $ (CPP) $ (CFLAGS) $ (CPPCREATEPCHFLAG) /c STDAFX.CPP

PTDINP.OBJ: PTDINP.CPP $(PTDINP_DEP)
      $(CPP) $(CFLAGS) $(CPPUSEPCHFLAG) /c PTDINP.CPP

MAINFRM.OBJ:             MAINFRM.CPP $(MAINFRM_DEP)
      $(CPP) $(CFLAGS) $(CPPUSEPCHFLAG) /c MAINFRM.CPP

PTDIDOC.OBJ:             PTDIDOC.CPP $(PTDIDOC_DEP)
      $(CPP) $(CFLAGS) $(CPPUSEPCHFLAG) /c PTDIDOC.CPP

PTDIVW.OBJ: PTDIVW.CPP $(PTDIVW_DEP)
      $(CPP) $(CFLAGS) $(CPPUSEPCHFLAG) /c PTDIVW.CPP

PTDDLG1.OBJ:       PTDDLGI.CPP $(PTDDLG1_DEP)
      $(CPP) $(CFLAGS)   $(CPPUSEPCHFLAG) /c PTDDLG1.CPP

PTDGOTO.OBJ:             PTDGOTO.CPP $(PTDGOTO_DEP)
      $(CPP) $(CFLAGS) $(CPPUSEPCHFLAG) /c PTDGOTO.CPP

$(PROJ).EXE::            PTDINP.RES

$(PROJ).EXZ::            STDAFX.OBJ PTDINP.OBJ MAINFRM.OBJ PTDIDOC.OBJ
PTDIVW.OBJ PTDDLG1.OBJ

PTDGOTO.OBJ $(OBJS_XT) $(DEFFILE)
echo >KUL @<<$(PROJ).CRF
STDAFX.OBJ +
PTDINP.OBJ +
MAINFM.OBJ +
PTDIDOC.OBJ +
PTDIVW.OBJ +
PTDDLG1.OBJ +
PTDGOTO.OBJ +
$(OBJS_EXT)
$(PROJ).EXE
$(MAPFILE)
c:\msvc\lib\+
c:\msvc\mfc\lib\+
EVALNET.LIB+
TKSDLL.LIB+
$(LIBS)
$(DEFFILE);
<<
      link $(LFLAGS) @$(PROJ).CRF
      $(RC) $(RESFLAGS) PTDINP.RES $@
      @copy $(PROJ).CRF MSVC.BND

$(PROJ).EXE::            PTDINP.RES
      if not exist MSVC.BND         $(RC) $(RESFLAGS) PTDINP.RES $@
```

```
run: $(PROJ).EXE
      $(PROJ) $(RUNFLAGS)

$(PROJ).BSC: $(SBRS)
      bscmake @<<
/o$@ $(SBRS)
<<

//  PTDidoc.h : interface of the CPTDinpDoc class
//
/////////////////////////////////////////////////////////////////////////////
/////////////////////////////////////////////////////////////////////////////
#ifndef  _PTDINPDOC_H_
#define  _PTDINPDOC_H_

#define REC_LENGTH 330L
class CPTDinpDoc : public CDocument

protected: // create from serialization only
      CPTDinpDoco;
      DECLARE_DYNCREATE(CPTDinpDoc)

//Attributes public:
public:

      CString m_LAB_ID;
      CString m_NAME_L;
      CString m,_NAME_F;
      CString m_NAME_MI;
      CString m,_DATE_OF_DATA_ENTRY;            //time
      double m_PATIENT_AGE;
      CString m_DATE_OF_BIRTH;
      CString m_ETHNIC_ORIGIN_WHITE;
      CString m_ETHNIC_ORIGIN_BLACK;
      CString m_ETHNIC_ORIGIN_ASIAN;
      CString m_ETHNIC_ORIGIN_HISPANIC;
      CString m_ETHNIC_ORIGIN_NATIVE_AMERICAN;
      CString m_ETHNIC_ORIGIN_OTHER;
      CString m_MARITAL_STATUS_SINGLE;
      CString m_MARITAL_STATUS_MARRIED;
      CString m_MARITAL_STATUS_DIVORCED;
      CString m_MARITAL_STATUS_WIDOWED;
      CString m_MARITAL_STATUS_LWP;
      CString m_MARITAL_STATUS_OTHER;
      CString m_ACOG_SYNPTOMS;
      CString m_PATIENT_COMPLAINT_1;
      CString m_PATIENT_COMPLAINT_1_1_3;
      CString m_PATIENT_COMPLAINT_1_10_12;
      CString m_PATIENT_COMPLAINT_1_4_6;
      CString m_PATIENT_COMPLAINT_1_7_9;
      CString m_PATIENT_COMPLAINT_1_GTT12;
      Cstring_rr_PATIENT_COMPLAINT_1_LT1;
      Cstring_m_VAGINAL_BLEEDING;
CString m_VAGINAL_BLEEDING_TRACE;
CString m_VAGINAL_BLEEDING_MEDIUM;
CString m_VAGINAL_BLEEDING_GROSS;
CString m_PATIENT_COMPLAINT_6;
CString m_PATIENT_COMPLAINT_3;
CString m_PATIENT_COMPLAINT_2;
CString m_PATIENT_COMPLAINT_5;
CString m_PATIENT_COMPLAINT_4;
```

```
CString m_EGA_BY_SONO;
CString m._EGA_BY_LMP;
CString m_EGA_AT_SAMPLING;
CString m_0_COMP;
CString m_1_COMP;
CString m_2_COMP;
Cstring m_3_COMP;
CString m_4_COMP;
CString m_5_COMP;
CString m_6_COMP;
CString m_2_COMP_1;
CString m_2_COMP_2;
CString m_2_COMP_3;
Cstring r_GRAVITY;
CString r_PARITY;
CString r_ABORTIONS;
CString m_MULTIPLE_GESTATION;
CString r_MULTIPLE_GESTATION_TWINS;
CString m_MULTIPLE_GESTATION_TRIPLETS;
CString m_MULTIPLE_GESTATION_QUADS;
CString m_UTCERV_ABNORMALITY;
CString r_CERVICT_L_CERCLAGE;
CString m_GESTATIONAL_DIABETES;
CString m_HYPERTENSIVE_DISORDERS;
CString m_DILITATION_LT1;
CString m_DILITATION_1;
CString m_DILITATION_1_2;
CString m_DILITATION_2;
CString m_DILITATION_2_3;
CString m_DILITATION_3;
CString m_DILITATION_GT3;
CString m_DILITATION_UNKNOWN;
CString m_CERVICAL_CONSISTANCY_FIRM;
CString m_CERVICAL_CONSISTANCY_MOD;
CString m_CERVICAL_CONSISTANCY_SOFT;
CString m_ANTIBIOTICS;
CString m_CORTICOSTEROIDS;
CString m_TOYOLYTICS;
CString m_INSULIN;
CString m_ANTIHYPERTENSIVES;
CString m_MEDICATIONS_NONE;
CString m_MEDICATIONS_UNKNOWN;
CString r_FFN_RESULT;

char  Rec[REC_LENGTH + 16];
char  fld[256];
char  PathName[128];
long  CurRecord;
long  NumRecords;
int   GotoMode;
CString  IDStr;
char  tstr[2561;
Ctime tim;

char  NetName[128];
char  NetRec[1024];
double  m_NetPosl;
double M_NetNegl;
double m_NetVall;
double m_7NetPos2;
double m_7NetNeg2;
```

```
double m_NetVal2;
double m_NetPos3;
double m_NetNeg3;
double m_NetVal3;

// Operations
public:

void get_rec( char* pRec);
char* get - fld(char* pRec, int ofs, int len);
CTime& gei time f ld (char* pRec, int of s, int len)
void put_rec(char* pRec);
void put_fld (char* pRec, CString& dat, int of s, int len)
void put_dbl_fld (char* pRec, double dat, int of s, int len);
void put_net_fld (char* pRec, double dat, int of s, int len) ;
void put_time_f ld (char* pRec, CTime& dat, int of s, int len)
void InitializeRec(void); void LoadNets(void);
void        FreeNets(void);
void        RunNets(long n);
char*       time2str( const CTime& tm);
CTime& str2time( CString& str);
void get-file( void);

//    Implementation
public:
      virtual ~CPTDinpDoc( );
      virtual void Serialize(CArchive& ar);     // overridden for document
i/o
#ifdef _DEBUG
      virtual void AssertValid ( ) const;
      virtual void Dump(CDumpContext& dc) const;
#endif

protected:
      virtual BOOL OnNewDocument ( );
//    Generated message map functions
protected:
      //{{AFX_MSG(CPTDinpDoc)
      afx_msg_void OnRecFirst ( );
      afx_msg_void OnRecLast ( );
      afx_msg_void_OnRecNext ( );
      afx_msg_void OnRecPrev ( );
      afx_msg_void OnFileOpen ( );
      afx_msg_void OnBldNetFile ( );
      afx_msg_void OnRecGoto ( );
      afx_msg_void OnFileMruFilel( );
      afx_msg_void OnFilemruFile2( );
      afx_msg_void OnFileMruFile3( );
      afx_msg_void OnFilemruFile4( );
      //}}AFX_MSG
      DECLARE_MESSAGE_MAP( )
};

#endif //  PTDINPDOC_H_

////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////
```